City of Crosslake

Local Option Sales Tax Request

January 26, 2021

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CITY OF CROSSLAKE
RESOLUTION NO. 21-03

RESOLUTION SUPPORTING THE AUTHORITY TO IMPOSE A LOCAL SALES AND USE TAX TO FUND SPECIFIC CAPITAL IMPROVEMENTS PROVIDING REGIONAL SIGNIFICANCE, TO ESTABLISH THE DURATION OF THE TAX AND THE REVENUE TO BE RAISED BY THE TAX, AND TO AUTHORIZE THE CITY TO ISSUE BONDS SUPPORTED BY THE SALES TAX REVENUE.

WHEREAS, the City of Crosslake has engaged Council Members, staff, community residents and businesses to identify the following projects;

Project 1: On-Site Bio Solids Treatment – Currently, the City transports all bio solids remaining after the wastewater treatment process to the Pine River Area Sanitary Sewer District for final treatment and disposal. The City anticipates it will no longer have this available in the near future and will be required to treat and dispose of its own bio solids. The estimated cost of treatment plant modifications enabling the City to treat and dispose of its own bio solids is $2,000,000.

Project 2: Northerly System Expansion (CSAH 66/Moonlite Service Area) – Due to high volume water users not currently on the City's sewer system, current and anticipated sewer issues in the Moonlite Bay Restaurant and Moonlite Square Car Wash/Gas Station, the City's intent is to extend sewer service to this area. Use in this area will continue to grow beyond the original septic design capabilities. Estimated cost (adjusted for inflation) is $1,600,000. Refer to Attachment A; "Citywide Wastewater Management Study", dated October 31, 2018 for project location and other details.

Project 3: Easterly System Expansion (Daggett Lake Service Area) – Due to density, small lot size, and proximity to lake shore, the City's intent is to extend sewer service to this area. The City considered this area in the past and residents have shown interest for sanitary sewer. Estimated cost (adjusted for inflation) is $2,400,000. Refer to Attachment A; "Citywide Wastewater Management Study", dated October 31, 2018 for project location and other details.

WHEREAS, the aforementioned projects will result in benefits to both the residents and businesses of the City of Crosslake as well as tourists and visitors; and,

WHEREAS, funding these project(s) with a local sales tax will more closely distribute the cost of the project(s) to the users of the facilities; and,

WHEREAS, the aforementioned project(s) are estimated to cost approximately $6,000,000; and,

WHEREAS, the City estimates that a local sales tax of 1/2 percent would generate $4,800,000 over 15 years would provide funding for project costs not assessed; and,

WHEREAS, Minn. Stat. § 297A.99 authorizes the imposition of a general sales tax if permitted by special law of the Minnesota Legislature; and,

WHEREAS, Minn. Stat. § 297A.99 requires the City to pass a resolution authorizing such a local tax and to obtain Legislative approval prior to approval by the local voters to enact the local tax;

NOW, THEREFORE, BE IT RESOLVED, BY THE CITY COUNCIL OF THE CITY OF CROSSLAKE, MINNESOTA AS FOLLOWS:

1. The City Council supports the authority to impose a general local sales tax of 1/2 percent for a period of 15 years to assist in funding the aforementioned projects;

2. Upon approval of this resolution, the City will submit the adopted resolution and documentation of regional significance to the chairs and ranking minority members of the House and Senate Taxes committees for approval and passage of a special law authorizing the tax, by January 31 of the year that it is seeking the special law.

3. Upon Legislative approval and passage of the special law authorizing the tax, the City will adopt a resolution accepting the new law, which will be filed with a local approval certificate to the Office of the Secretary of State before the following Legislative session.

4. The City will put a detailed ballot question(s), which includes separate questions for each project, on a general election ballot for local voter approval. This will be done within two years of receiving legislative authority.

5. If one or more ballot questions pass, the City will also pass an ordinance imposing the tax and notify the Commissioner of Revenue at least 90 days before the first day of the calendar quarter that the tax will be imposed.

6. Upon completion of the aforementioned requirements, the local sales tax will commence and run until December 31, 2036 or until a sum sufficient to fund the voter approved projects, including related debt costs, is raised, whichever comes first.

Adoption by the City Council of the City of Crosslake this 11th day January, 2021.

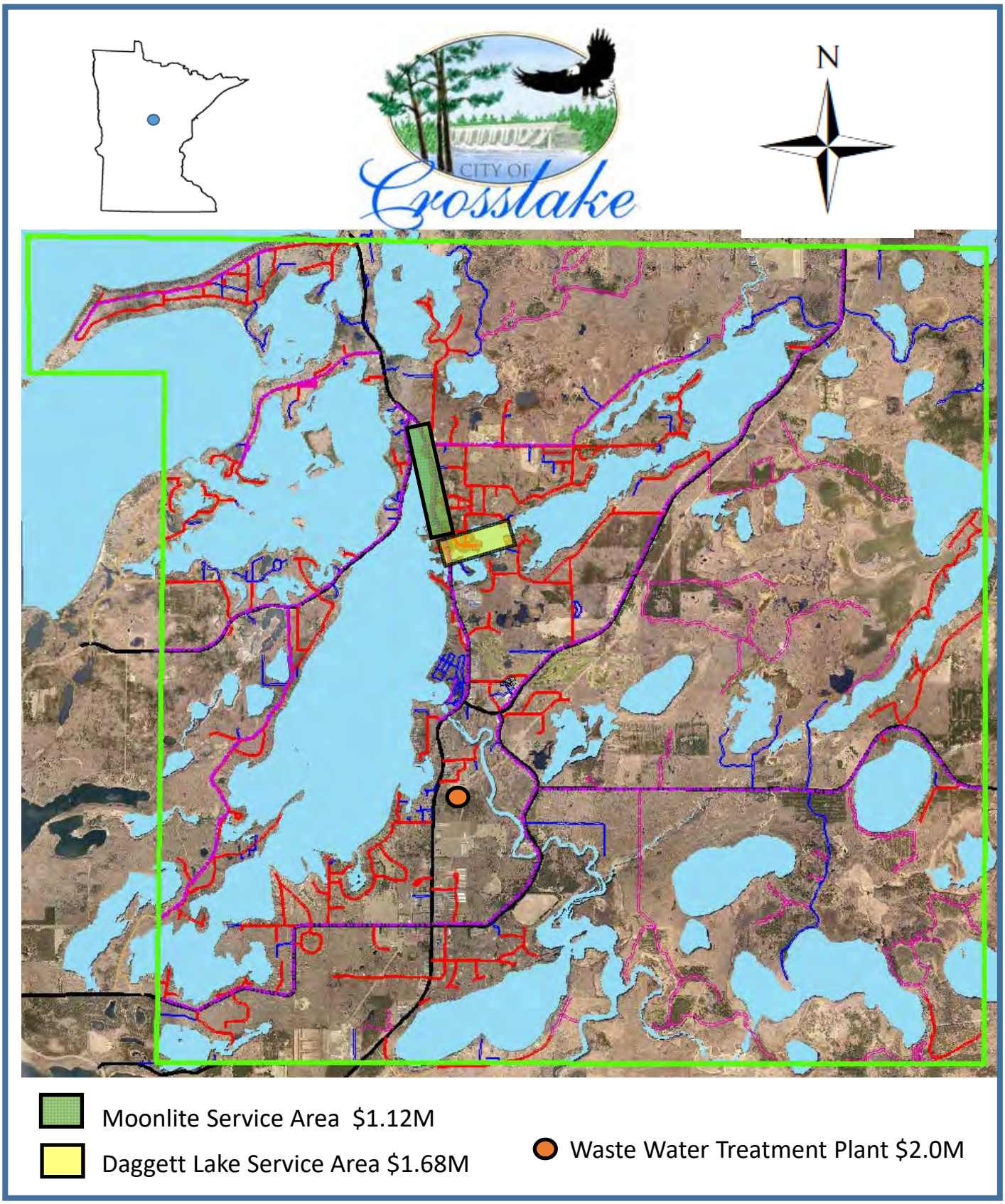
David Nevin, Mayor

Michael R. Lyonais, City Administrator

ATTEST:

Charlene Nelson, City Clerk

City of Crosslake – Project Area



City of Crosslake
Estimated Project Costs/Funding Sources

Project Funding Sources	2022 CSAH/66 Moonlite Service Area	2023 Bio-Solids Treatment Facility 2023	2026 Daggett Lake Service Area 2026	Totals
Local Funding (Assessments, Levy, Grants)	**$ 480,000**	**$ -**	**$ 720,000**	**$ 1,200,000**
Local Option Sales/Use Tax	**1,120,000**	**2,000,000**	**1,680,000**	**4,800,000**
Estimated Project Costs *	**$ 1,600,000**	**$ 2,000,000**	**$ 2,400,000**	**$ 6,000,000**

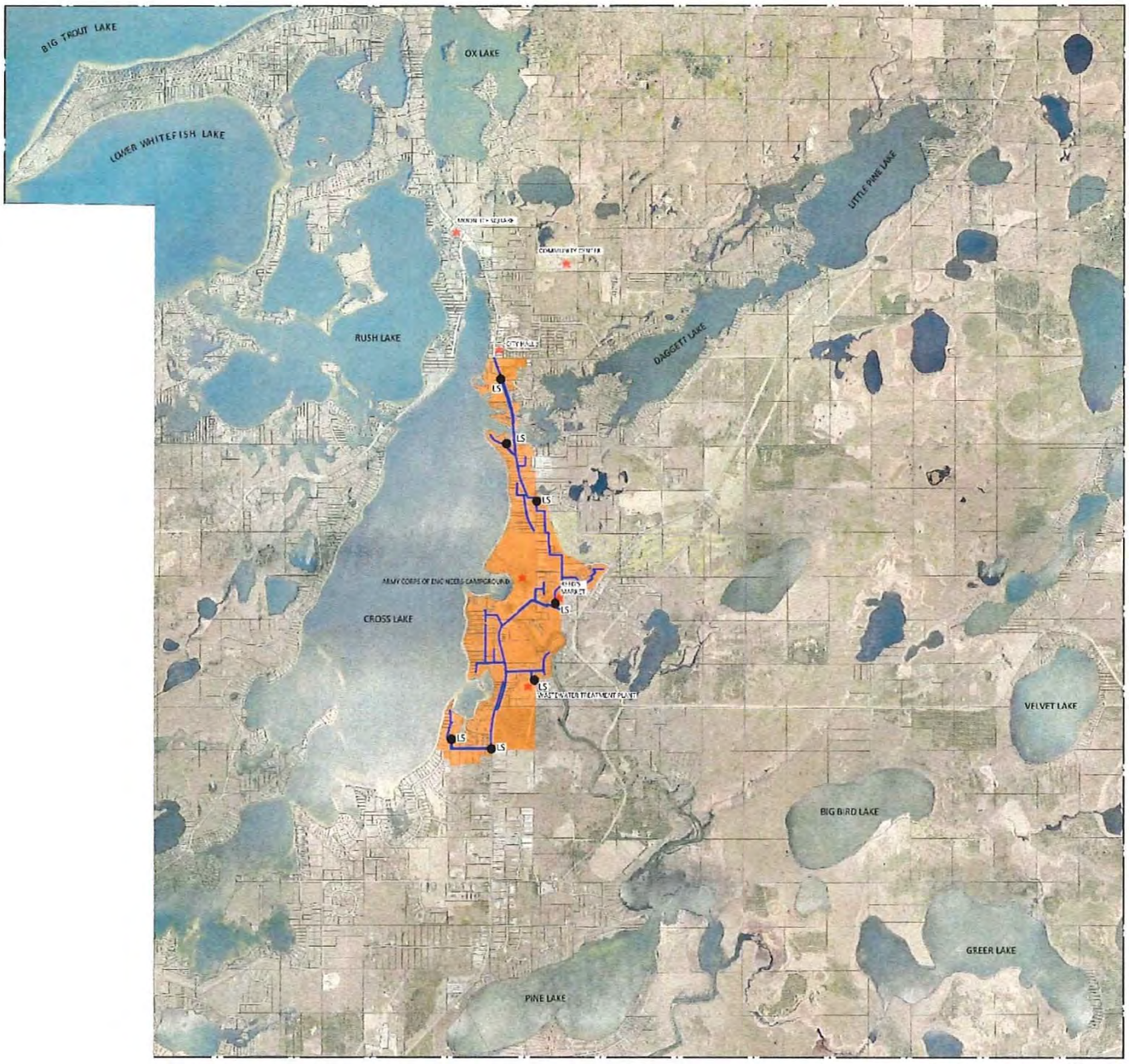
(* Excludes bonding costs, a portion of which may be offset by interest received on amounts assessed.)

City of Crosslake – Additional information for Local Option Sales Tax.

Regional Significance of Wastewater Treatment and Collection System:

The City of Crosslake covers approximately 37 square miles of area of which approximately 1/3 is covered by water. The City's existing wastewater treatment facility currently serves only a portion of the current businesses and residences within the City encompassing approximately 3% of the City's land area. Within the City, there are 41 classified lakes and 61 public bodies of water that are identified by the Minnesota Department of Natural Resources.

Please refer to the map below, extracted from the "Citywide Wastewater Management Study" dated October 31, 2018, prepared by Bolton & Menk. The highlighted area shows the area currently served by City Sewer. (The City does not have a water system.)



As stated in the City's most recently update of the City's Comprehensive Plan (updated in May 2018):

- "*Given the unique geography and water in and around Crosslake, tourism is perhaps the most impactful economic driver in the community. During the spring and summer months, the influx of both visitors and seasonal residents increases dramatically. Naturally, this results in a thriving tourist economy, particularly in the areas of hospitality, construction, real estate, storage facilities, cabin care, landscaping, dock services, and others.*

  Visitors often come to Crosslake, not as a one-time destination, but rather year after year. Increasingly, visitors end up relocating and become permanent residents after experiencing the unique character, natural resources, and recreational opportunities.

  The economic opportunities are of a thriving tourist economy are not without challenges. For example, with the influx of visitors and seasonal residents during the summer months comes added strain on city services and higher environmental impacts for both waterways and sensitive areas. Striking the balance between economic vitality and environmental conservation is key to Crosslake's continued success….."

The City commissioned a Local Option Sales Tax Analysis prepared by the University of Minnesota Extension Center for Community Vitality. The Analysis was completed in August 2019. The purpose of the Analysis, was to determine not only the potential impact of implementing a local option sales tax, but also to determine what level of retail sales and use tax was generated by residents vs. non-residents.

The Analysis showed an overwhelming percentage of sales tax currently generated from retail sales from Crosslake came from non-residents. An estimated 80.7% of retail sales tax came from non-residents with the remainder, 19.3% coming from residents. The Analysis also illustrated no significant change in overall retail sales would be anticipated by implementing a local option sales and use tax. (Refer to Attachment "B" for a full copy of the Analysis.)

It is clear residents and visitors come to Crosslake to use its recreational resources, especially the water resources for recreational and water use related activities. Municipal sewer treatment contributes to protecting and maintaining Crosslake's high quality water resources and keeps Crosslake a desirable tourism location today and into the future.

Project 1: On-Site Bio Solids Treatment

The City of Crosslake currently has limited liquid storage of bio-solids. The City is currently disposing of solids by hauling the bio-solids multiple times per year to a facility in Pine River that utilizes a reed bed treatment process. The current arrangement has worked well but is facing growing obstacles. The storage volume requires more frequent hauling and creates problems with winter storage limitations, as the Pine River Facility is not able to process as well in the winter. Second and more importantly, the reeds used in the natural treatment process have recently been classified as noxious weeds. This results in much more expensive disposal since the reeds can only be landfilled and have transportation limitations. The process is not officially banned but is essentially been regulated into obsolescence with the noxious weed classification of the reeds.

The proposed project would provide the City of Crosslake the ability to dewater solids onsite utilizing a low operational cost system. Once dewatered the solids can be cost-effectively transported off-site for land application or use as a landfill cover. The ability to process onsite will also alleviate the limited storage issues. Dewatered solids have less than 10% the volume of liquid solids and offer a tremendous savings in trucking costs, while also offering more diverse disposal alternatives. The City will be able to maintain independence and cost control with this proposed project.

During 2020, the City allocated funding in its budget and began preliminary work and related testing for this project to further define the scope and timing of potential construction. The estimated cost of treatment plant modifications enabling the City to treat and dispose of its own bio solids is $2,000,000.

Project 2: Northerly Expansion System (CSAH 66/Moonlite Service Area)
This expansion concept begins on the existing system located on CSAH 66 near the north terminal of the current system near the Fire Hall and expands northerly to the Moonlite Bay Service Area in the junction of CSAH 66 and HWY 16. The City has already engaged its engineer in developing construction plans ready for bidding. The concept is to have plans ready to be funded with sales tax, if available, and if not, still allow adequate time to consider other financing options and keep the project on track.

Due to high volume water users not currently on the City's sewer system, current and anticipated sewer issues in the Moonlite Bay Restaurant and Moonlite Square Car Wash/Gas Station, the City's intent is to extend sewer service to this area. Use in this area will continue to grow beyond the original septic design capabilities. Estimated cost (adjusted for inflation) is $1,600,000. Refer to Attachment A; "Citywide Wastewater Management Study", dated October 31, 2018 for project location and other details. Page 15 of the Study includes details of the project area while the end of that same Study, includes a detail unadjusted cost estimate. This project would also anticipate connecting approximately both commercial and residential users along this corridor.

Project 3: Easterly System Expansion (Daggett Lake Service Area)
Due to density, small lot size, and proximity to lake shore, the City's intent is to extend sewer service to this area. The City considered this area in the past and residents have shown interest for sanitary sewer. Estimated cost (adjusted for inflation) is $2,400,000. Refer to Attachment A; "Citywide Wastewater Management Study", dated October 31, 2018 for project location and other details. Page 13 of the Study includes details of the project area. The Study also includes a detail unadjusted cost estimate.

Project Funding and Timing:
The City estimated it will take 15 years of the local option sales tax to adequately fund each project. A combination of local option sales tax, special assessments, and sewer availability charges will be used to fund each the projects. Timing wise, the Moonlite Service Area will begin construction first – likely in 2021 or 2022. Local Option Sales Tax would assist in servicing General Obligation Bonds issued to finance the project. Total principal and interest payments on the bonds are estimated to be $1,935,243 of which $714,811 would be paid by special assessments (or a combination of pending storm water grants and special assessments) and the remainder, paid by local option sales tax. The size of any bond issuance would be reduced by the amount of any grants ultimately received by the City.

Next, the City estimates preliminary work and testing to be complete and would design its new bio solids treatment process – estimated construction would commence in 2023. The City would propose to use General Obligation Bonds to finance the project along with any sewer availability charges (SAC) received from the Moonlite Service Area Project. The Moonlite Service Area Project would now be complete and

the SAC charges generated would be used in part, to finance the Bio Solids project, or be used to reduce the size of the associated debt issuance. Repayment of bonds issued for this project would likely be over 10 years. Total principal and interest payments on the bonds are estimated to be $2,337,781 of which $475,000 would be paid sewer availability charges from the Moonlite Service Area Project and the remainder, paid by local option sales tax.

The Daggett Bay Road Project would be the last project timing wise. The City would use General Obligation Bonds finance the project along with special assessments and sewer availability charges generated from the project. Repayment of the bonds would likely be over 10 years. Under this proposal, construction of this improvement could begin in 2025, with the first debt service payment in 2026.

It should be noted, that by 2028, sales tax collections would not be keeping up with debt service requirements. To alleviate this situation, the City could take one of several actions – increase the percentage of project costs assessed at the beginning of the project, shift current debt service levies for the wastewater. Current levies for existing bonds will be paid off by the time this deficit occur or, use existing cash on hand to fund the deficit. (Increasing the amount assessed from 30% to 40% on the Moonlite Service Area and the Daggett Bay Road Projects would likely cover any deficit.)

Please Refer to the Following Attachments:

Attachment “A” – Citywide Wastewater Management Study

Attachment “B” – Local Option Sales Tax Analysis for Crosslake, MN

Attachment “C” – Proposed Funding Details

ATTACHMENT "A"

BOLTON & MENK

Real People. Real Solutions.

Draft: October 8, 2018
Final: October 31, 2018

Project No. B11.116905

Citywide Wastewater Management Study

City of Crosslake, MN

Submitted by:
Bolton & Menk, Inc.
7656 Design Road
Suite 200
Baxter, MN 56425
P: 218-825-0684
F: 218-825-0685

Certification

Citywide Wastewater Management Study

for

City of Crosslake, MN

BMI No. B11.116905

October 2018

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

By: _____

Phillip M. Martin, P.E.
License No. 25378

Date: 10/31/2018

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Tables and Figures

Appendix

I. Introduction

For communities with a locally owned and operated wastewater system, it is important to work to ensure that these systems are adequately managed and maintained. This helps to ensure that local capacity is available, and that decisions regarding the extension of City infrastructure is understood in the overall context of Citywide wastewater management goals. The intent of the wastewater study is to identify and provide information that allows the City to understand wastewater management within the City of Crosslake so that informed decisions can be made in the future.

II. Sanitary Sewer Flows

The forecasts for population and households for the City of Crosslake are provided in Table II.1 below:

Table II.1 – Population and Household Projections

Year	Population	Households
2017[1]	2,250	1,090
2020[2]	2,302	1,107
2030[2]	2,478	1,191
2040[2]	2,667	1,282

[1]Population and Household information taken from Minnesota State Demographics Center
[2]Population Information projected for 2018 – 2040 from American FactFinder (https://factfinder.census.gov/) using average annual population increases and household increases from 2010-2017. Households project assuming 2.08 average persons per household.

The population figures in Table II.1 represent those that claim Crosslake as their primary residence and do not reflect the seasonal population increases that are experienced in the Crosslake area, particularly during the months of May through September.

Based on information provided in the Crosslake Comprehensive Plan Update 2035, Adopted May 2018, according to the American Community Survey (ACS) Crosslake had 1,836 seasonal/occasional housing units (basis: 5-yr estimate average 2008-2012). The Plan Update also reports that "nearly ninety percent of the housing stock are single-family homes" and further graphically and numerically estimates that 89% (2,575) of the Crosslake units in structure are 1-unit.

According to the Plan Update, the Crow Wing County Housing study states that Crosslake has 1,065 housing units (2014 ACS estimate) and projects 1,150 in 2020, and 1,260 in 2030. It also indicates there are 2,882 housing units in the City, of which 1,002 are occupied units while 1,880 units remain vacant which they attribute to the seasonal nature of Crosslake as a community.

The Wastewater Treatment Plant (WWTP) is designed and permitted for an average daily flow of 150,000 gallons per day (gpd). The current daily flows at the WWTP peak at approximately 100,000 gpd for maximum day with the 30-day Average Wet Weather (AWW) flows peaking at around 55,000 gpd. This is approximately 35% of the WWTP permitted capacity. With recent improvements to the WWTP to address seasonal peak hourly flows that limited the performance of the WWTP, the WWTP has significant growth capacity remaining for expansion of the sanitary sewer collection system and to increase the number of connections three-fold.

Working backwards, the WWTP capacity can be broken down using Crosslake's current flow basis for determination of Sewer Availability Charge (SAC). In Chapter 50 of the Crosslake Code, Equivalent Residential Unit (ERU) is defined below:

> *ERU or equivalent residential unit* means a term used for the purpose of calculating the total connection charge for a property. Specifically, it is defined as a building service with an anticipated peak monthly volumetric flow not exceeding 274 gallons per day or a service servicing a primary individual dwelling unit. The concentration of the sewage shall be normal domestic strength wastewater.

On a strictly ERU basis, the WWTP capacity can be reduced to ERU availability. At 150,000 gpd and the flow basis of 274 gpd/ERU, the WWTP has a design treatment capacity for about 547 ERUs. If the current WWTP flow is 35% of capacity, or 55,000 gpd, about 200 ERUs worth of treatment capacity is being used and 347 ERUs worth of treatment capacity remains. It is important to note that a physical connection, whether existing or in the future, might not be limited to 1 ERU of treatment capacity (i.e. 274 gpd of flow) but will vary depending upon the use of the property (i.e. single unit residential, multi-unit structure, restaurant/lodging establishment, etc...). The simplistic analysis above is intended only to provide a frame of reference for how many simple single unit ERU connections could be made the current or expanded sanitary sewer system before the WWTP capacity would be exhausted.

Chapter 50 of the Crosslake Code is taken from information developed by the Metropolitan Council. The flow basis of 274 gpd can be considered conservative since it was derived to include inflow and infiltration (I/I) into a sanitary collection system, which is common in many older collection systems, particularly with construction materials such as vitrified clay pipe (VCP). In addition, the flow basis may also have further conservativeness as a result of the era in which it was developed. Today, there is more concern regarding water supply and waste generation, which has led to prevalent use of water saving appliances and equipment in the vertical construction industry. For comparison of the Chapter 50 flow basis with actual City connection/flow information, the current City connections were compared to the current WWTP flow levels. The City currently has 314 residential connections and 139 commercial connections to the sanitary sewer collection system. Based on an average flow of 55,000 gpd, the average flow per connection would be about 121 gpd. Based on a peak flow of 100,000 gpd, the peak flow per connection would be about 221 gpd. As a result of this direct comparison of conceptual flow to average/peak actual on a connection basis, it appears likely that the WWTP capacity may be viable for a longer period of time than the predicted capacity/connection period based on Chapter 50 standards alone.

For the purpose of this study, our capacity analysis and projection of capacity use with connection will remain based on the Chapter 50 standards, which we anticipate will be conservative.

III. Existing Sewer Collection and Treatment

In 2004, the City completed construction of the City wastewater treatment improvement (Contract No. 1) and the City collection system (Contract No. 2).

Wastewater Treatment

The Crosslake Wastewater Treatment Plant (WWTP) was designed and permitted for an average daily flow of 0.15 million gallons per day (mgd) or 150,000 gallons per day (gpd). It is located south of the Pine River and to the east of CSAH 3 on City owned land that is part of the City of Crosslake/Crow Wing County Public Works Complex.

Based on flow information provided by City staff in 2017, the current daily flow peak at approximately 100,000 gpd for maximum day with the 30-day average wet weather (AWW) flows peaking at around 55,000 gpd. This is approximately 35% of the WWTP permitted capacity. Due to the seasonal population increases that the Crosslake area experiences, the WWTP was recently upgraded with a flow equalization tank and updated operation and control features to allow the WWTP to maintain high quality treatment levels in an efficient, consistent manner. Treated wastewater effluent is discharged to the Pine River and digested biosolids are transported to the Pine River Area Sanitary District for further treatment and disposal. A copy of the current Crosslake WWTP NPDES Permit is included in Appendix A.

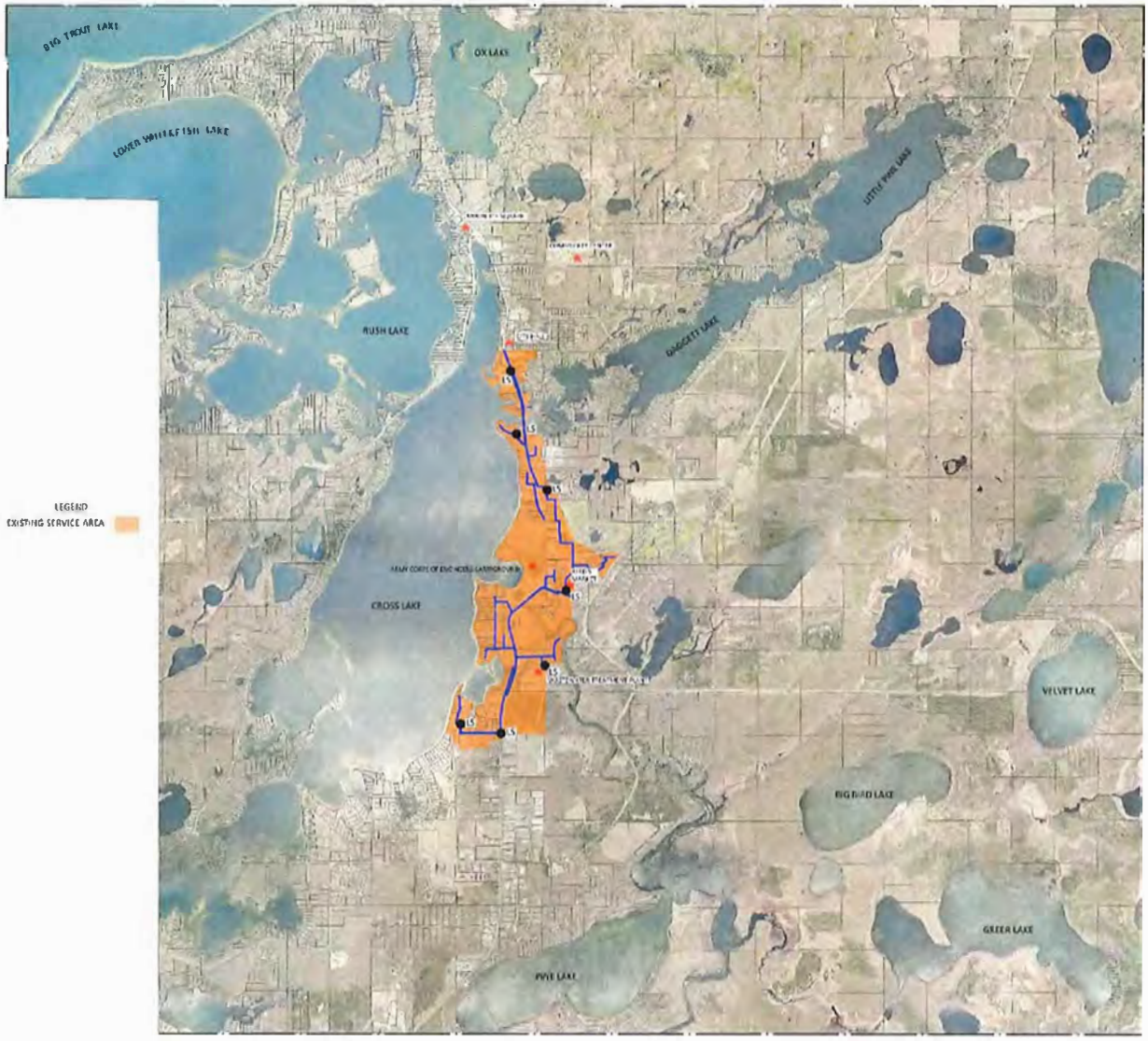
Sanitary Sewer Collection System

The original sanitary sewer collection system was predominately installed along or paralleling CSAH 3 & CSAH 66 to connect existing residential and commercial properties as depicted in Figure III.1. The original system included over 30,000 feet of installed sanitary sewer pipe and the construction of 6 sanitary sewer lift (pumping) stations. The system extended from East Shore Road in the southeast to City Hall located north of Daggett Bay Road. Since the original construction scope, the sanitary sewer collection system has been extended into the Town Square area. It is estimated that the current sanitary sewer collection system serves approximately 3% of the total land (i.e. non-lake) area (about 500 acres) that comprises the City of Crosslake.

The cost of the original wastewater treatment and sanitary collection system improvements was approximately $6.3 million. According to staff, the improvements were paid in part by City revenues generated from the sale of stock owned by the City and through Sewer Availability Charges (SAC) assessed to those that connected to the system on an Equivalent Residential Unit (ERU) basis as follows:

- Residential Connection Fee = $3,000 per ERU
- Commercial Connection Fee = $5,000 per ERU

Figure III.1 – Existing Sanitary Sewer Collection Area



We understand that connection fees were only assessed to properties that physically connected to the City system and that no parcels pre-paid their SAC to reserve treatment capacity for their property. Furthermore, it is our understanding that subsequent connection to the sanitary sewer collection system has been on a "first-come, first-service" basis.

Since 2004, the City has adjusted these fees. The current SAC in the City of Crosslake is as follows:

- Residential Connection Fee = $4,000 per ERU
- Commercial Connection Fee = $6,500 per ERU

The City charges for monthly usage based on property classification. Residential usage is billed as a flat rate. Commercial property is billed based on private well water meter records. The current monthly sewer usage rate charge is as follows:

- Residential Usage Charge = $48 per month
- Commercial Usage Charge = $48/8,000 gallons per month

The purpose of a municipal wastewater collection system is to collect and transport the wastewater flows of a community to a point of treatment or ultimate disposal. Conceptual system expansions discussed later in this report are intended to provide service to the ultimate residential, commercial and industrial development within reasonable growth areas based on current land information. The development of the expansion concepts includes consideration of the following elements:

- Location of existing City and County roads. To the extent possible, the conceptual system expansions are planned along the same alignment as existing roads to minimize excavation, disturbance, and easement/right-of-way acquisition.
- Topography of potential expansion areas, including limitations placed by natural impediments, such as lakes, rivers, and wetlands and groundwater elevations.
- Depth and capacity of existing sanitary sewers and lift stations to which the potential expansion sewers would flow.

The desired force that drives flow in a sanitary sewer pipe is gravity. Therefore, potential system expansion first seeks to place pipes on an acceptable grade (slope) with adequate pipe cover and at an elevation above anticipated groundwater levels. The minimum permitted pipe diameter in a residential service area is 8-inch. The size increases when higher flows are anticipated or if the system will serve areas with significant commercial/industrial activity. In general, a sewer pipe depth of 12-foot is desired to provide gravity service to full basements and manholes are traditionally located at 400-foot intervals for system maintenance.

When gravity flow conditions alone are not possible (i.e. in situations where the service area is lower in elevation than the gravity sewer), the system expansion considers the implementation of lift station/forcemain systems and the use of low pressure sewer systems to expand the system to serve more of the identified potential growth area.

IV. Wastewater Management Service Areas

According to the City of Crosslake website, the City of Crosslake covers 37 square miles (23,680 acres) with over one-third of that area covered by water. The WWTP currently serves only a portion of the current businesses and residences within the corporate limits of Crosslake and encompasses approximately 3% of the total land (i.e. non-lake) area (about 500 acres).

The WWTP was designed to accommodate a larger share of businesses and residences. Based on 2017 wastewater flow information, the facility is operating at about 35% capacity, meaning the current WWTP has the capacity to increase the number of connections nearly three-fold. The capacity of the current WWTP can be expanded further in the future should that ultimately be needed. This provides the City of Crosslake with many options and choices for long range planning of collection system extensions to provide City collection in currently unsewered areas. It also provides the City an opportunity to take a high-level view of citywide wastewater management and adopt a strategy for how to handle wastewater management in currently unsewered areas of the City.

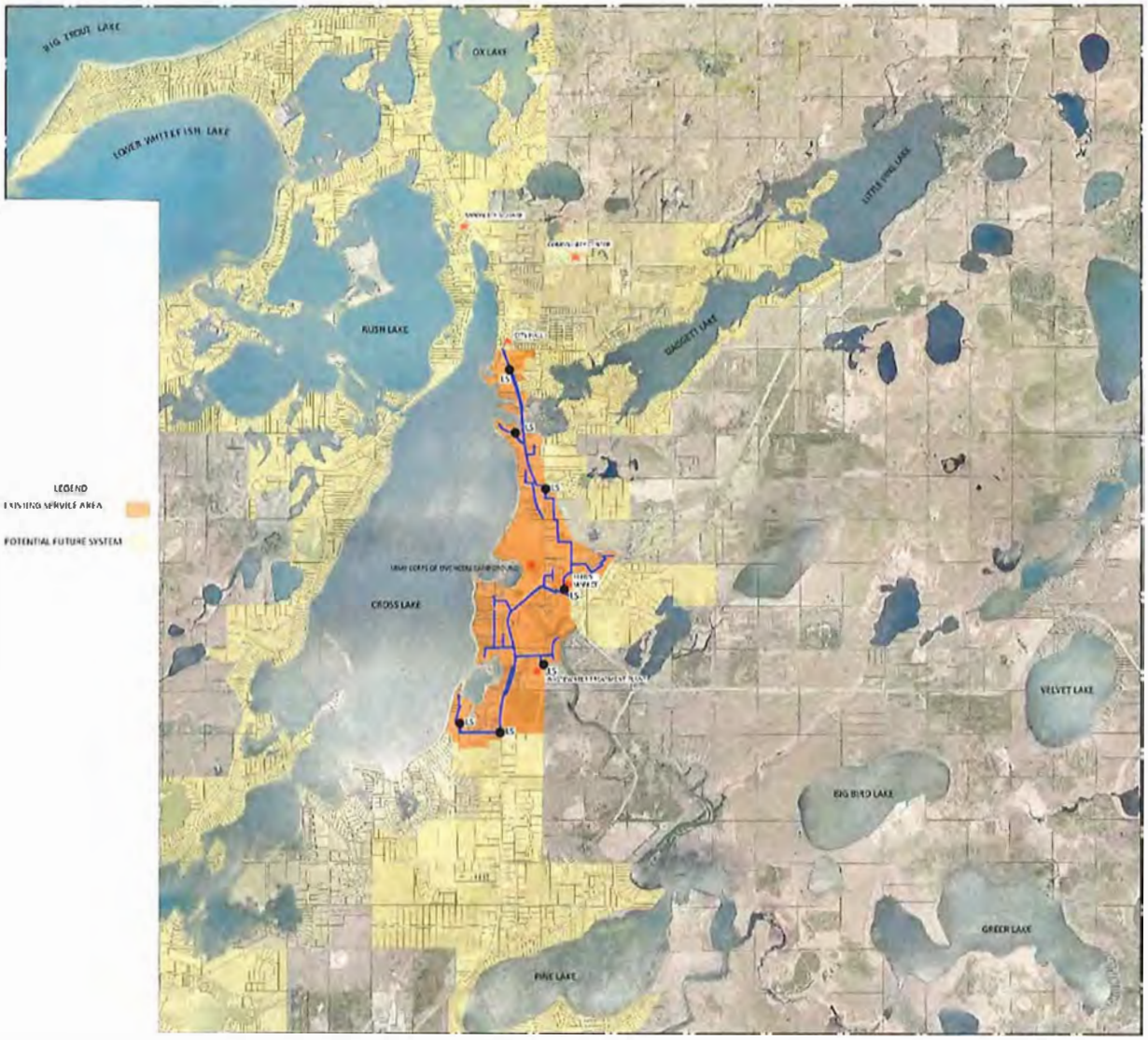
To assist the latter question, the entire City of Crosslake corporate limits were considered relative to the existing sanitary sewer collection system. Parcel characteristics such as land ownership, land use/zoning, density/lot size, terrain, and proximity to lakeshore were considered in the context of the existing collection system.

- Land Ownership – Land ownership in Crosslake can be split into the following categories (Refer to the Public Lands Map in Appendix B):
    - Publicly Owned – This ownership type includes Crow Wing County, State of Minnesota, and the US Army Corps of Engineers lands and is predominantly located in the easterly half of the City.
    - Privately Owned – The ownership type is predominant throughout the City with larger tracts in the eastern portion of the City and smaller tracts ownership around lakes in western half or third of the City.
- Land Use/Zoning – The majority of commercial (limited & downtown) in the City is along CSAH 3 south of the Pine River and along CSAH 66 north of CSAH 3 (Refer to the City of Crosslake Land Use Districts Map in Appendix B). Significant residential and commercial land use is located within the Shoreland District. Rural residential areas are identified throughout the eastern two-thirds of the City but particularly through the center one-third of the City.

- Lot Density/Size – Lot density and smaller lot sizes are generally noted around lakes and in western one-third to one-half of the City and along Daggett and Little Pine Lake. Some increased lot density and smaller lot size is evident on some more remote lakes in the east one-third of the City.
- Terrain Characteristics – Most wetland complex areas are located in the easterly one-half of the City with lakes throughout and the larger lakes in the western one-third of the City (Refer to the City of Crosslake Environmental Map in Appendix B).
- Proximity to Lake Shore – A significant amount of development is along lakes where the potential for water quality impact from on-site septic systems is greater.

Based on this high-level review, two simple wastewater management strategies were identified within the City are depicted in Figure IV.1 and as described below.

Figure IV.1 – Collection System Wastewater Management Area



Collection System Wastewater Management – This would be a City owned, operated, and maintained system where wastewater generated on parcels within service boundary areas would be collected to the City WWTP. It is anticipated that the collection system would be comprised of gravity collection pipe segments, lift stations, forcemain segments, and low-pressure sewer pipe segments. This wastewater management area is depicted as the yellow shaded area below in Figure IV.1 and generally includes the western one-third of the City where lot density, private ownership, and land use is much higher. The identified Collection System Wastewater Management area (existing system and potential future) would cover about 31% of the total land area (excluding lakes) in the City.

Individual On-site Wastewater Management – This would be privately owned, operated, and maintained individual sewer treatment systems that are outside of the City sanitary sewer collection system now and in the foreseeable future. The City approach to this management system could be to track system maintenance to assure systems are being maintained on a regular basis per prevailing onsite treatment system standards, or to not get involved as is the current practice within the City. This wastewater management area is depicted in Figure IV.1 as the unshaded area and generally includes the easterly one-half to two-thirds of the City, except for an area of higher lot density and land use along Daggett Lake. The Individual On-site Wastewater Management area would cover about 69% of the total land area (excluding lakes) in the City.

Further high-level conceptual review of wastewater management will focus on the Collection System Wastewater Management areas to identify potential system extension opportunities and preliminary cost information for City use and review.

V. Proposed Collection System / Wastewater Management Opportunities

Currently the City sanitary sewer collection system covers a small portion of the residential and commercial properties on the easterly side of Cross Lake and is located along portions of CSAH 3 and CSAH 66. Potential expansion of the sanitary sewer collection system for wastewater management has been considered at various times since the original system installation in 2004. Most recently, the City has been considering the expansion of the sanitary sewer collection system to the north along CSAH 66 to commercial properties located near the intersection of CSAH 16 & 66.

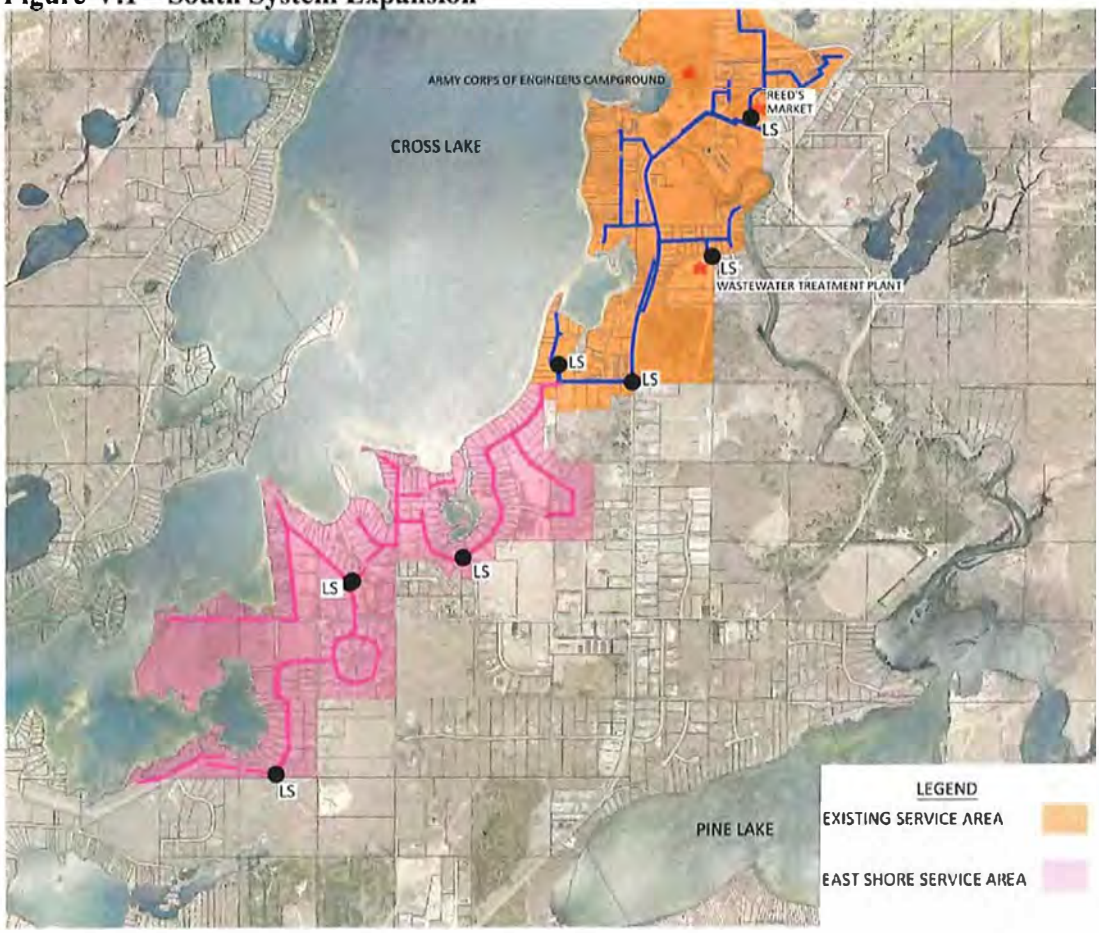
To assist the City of Crosslake consider future expansion of the sanitary sewer collection system, the existing collection system was considered within the context of the identified Future System areas of the City. Drawing on past and current study information, information from the City Comprehensive Plan Update adopted in 2018, and considering input by staff regarding areas of concern within the City, conceptual sanitary sewer extension areas were identified. These identified sanitary sewer extension areas were selected to provide the City with a "first ring of system expansion" beyond the original collection system. Included with each expansion concept is a preliminary estimate of the number of connection ERUs that could be realized with the extension of sanitary sewer collection infrastructure. Detailed expansion of the remainder of the potential future sanitary sewer collection system beyond this first expansion ring is considered beyond the planning scope of this study and as a result will be considered at a high level, macro scale.

South System Expansion – East Shore Service Area

This expansion concept begins on East Shore Road at the south extent of the existing sanitary sewer system and expands the sanitary sewer system along the southeasterly edge of Cross Lake as depicted in Figure V.1. At the existing manhole (SS 6) located at the intersection of East Shore Road and East Shore Boulevard, a 10-inch diameter sanitary sewer pipe was stubbed toward the west in East Shore Road at a depth of about 23 feet below the street in 2004.

With this concept, the 10-inch gravity sewer pipe segment could be extended approximately 3,700 feet along East Shore Road until bury depths become too shallow and approximately 2,200 feet along Park Drive. The pipe installation is anticipated to require significant dewatering until the pipe invert elevation increases to about elevation 1230'. Expansion along East Shore Road would provide service to smaller lot, higher density properties along lake shore. Expansion along Park Drive would provide an opportunity to serve off lake property that could be developed to provide more affordable housing stock within the City as identified in the City Comprehensive Plan update. With this expansion concept, 70 connection ERUs were estimated in this first gravity segment.

Figure V.1 – South System Expansion



Further expansion of a sanitary sewer collection system would require the combined use of lift stations, low pressure sewer systems, and gravity pipe collection segments as follows:

- Second Expansion Segment - A second sanitary sewer collection segment could be extended along the remaining westerly portion of East Shore Road, East Shore Circle, a portion of Happy Landing Road, and along Red Oak Circle that would be collected to a lift station and pumped into the first gravity segment. In addition, a low-pressure sewer collection pipe could be installed along Happy Cove Road and connected to the gravity sewer pipe in Happy Landing Road to serve properties along the lake shore. In this second expansion segment, 59 ERU connections are estimated.

- Third Expansion Segment - A third sanitary sewer collection segment could be extended along White Oaks Drive, Urban Point Road, Dancing Bear Drive, and a portion of Sequoia Drive that would be collected in a lift station located on White Oak Drive. A low-pressure sewer pipe could be extended along Perkins Road to provide service to properties along the

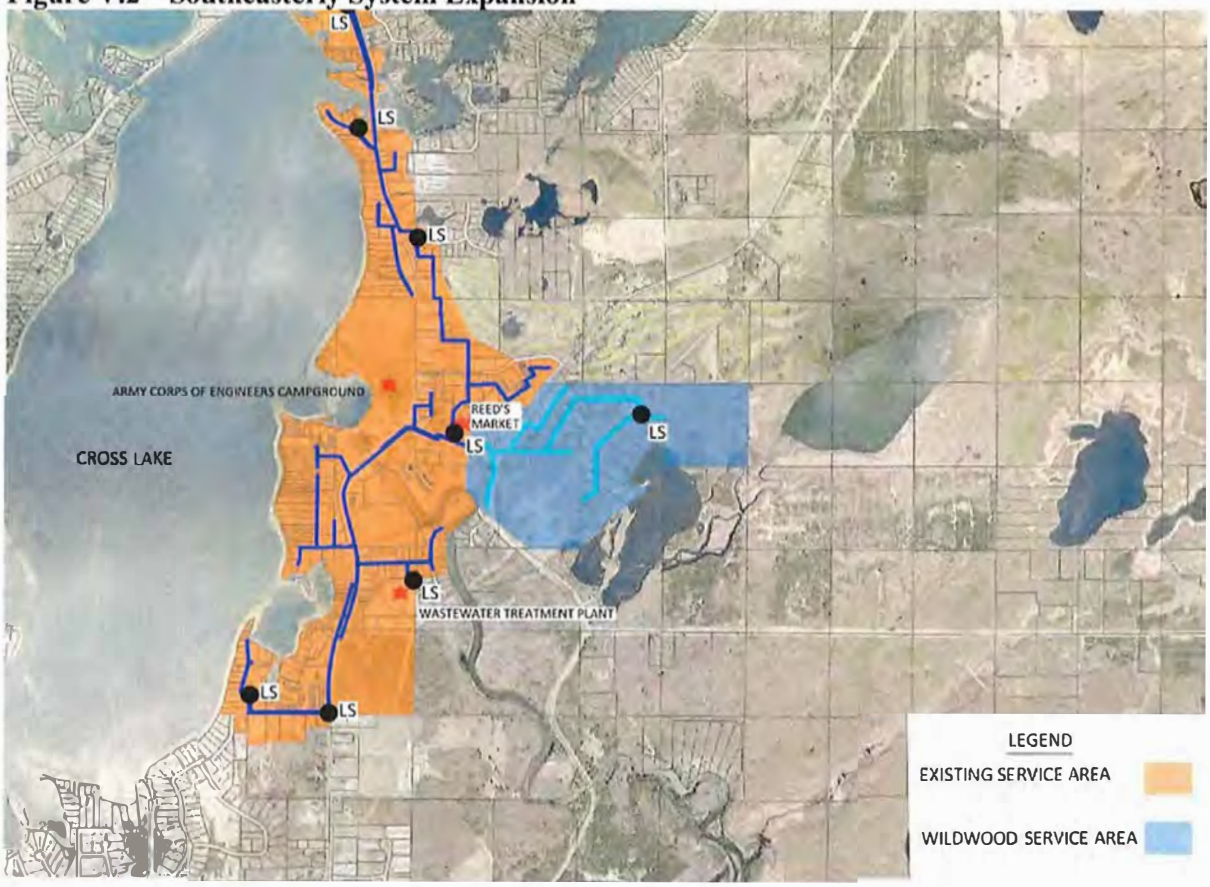
lake shore. The lift station would pump into the second gravity pipe segment located on Red Oak Circle. In this third expansion segment, 97 ERU connections are estimated.

- Fourth Expansion Segment - A fourth sanitary sewer collection segment could be extended along Sequoia Drive and Anderson Court and include the installation of a low-pressure sewer pipe along Ivy Lane to serve lake shore properties. This segment would be collected to a lift station located along Sequoia Drive and pump into the third gravity segment located in Sequoia Drive. In this fourth expansion segment, 55 ERU connections are estimated.

Southeasterly System Expansion – Wildwood Service Area

This expansion concept begins on CSAH 3 at the existing sanitary manhole (SS #33) near the west entrance to Reed's Express and expands the sanitary sewer system along CSAH 3 and easterly into developed parcels as depicted in Figure V.2.

Figure V.2 – Southeasterly System Expansion



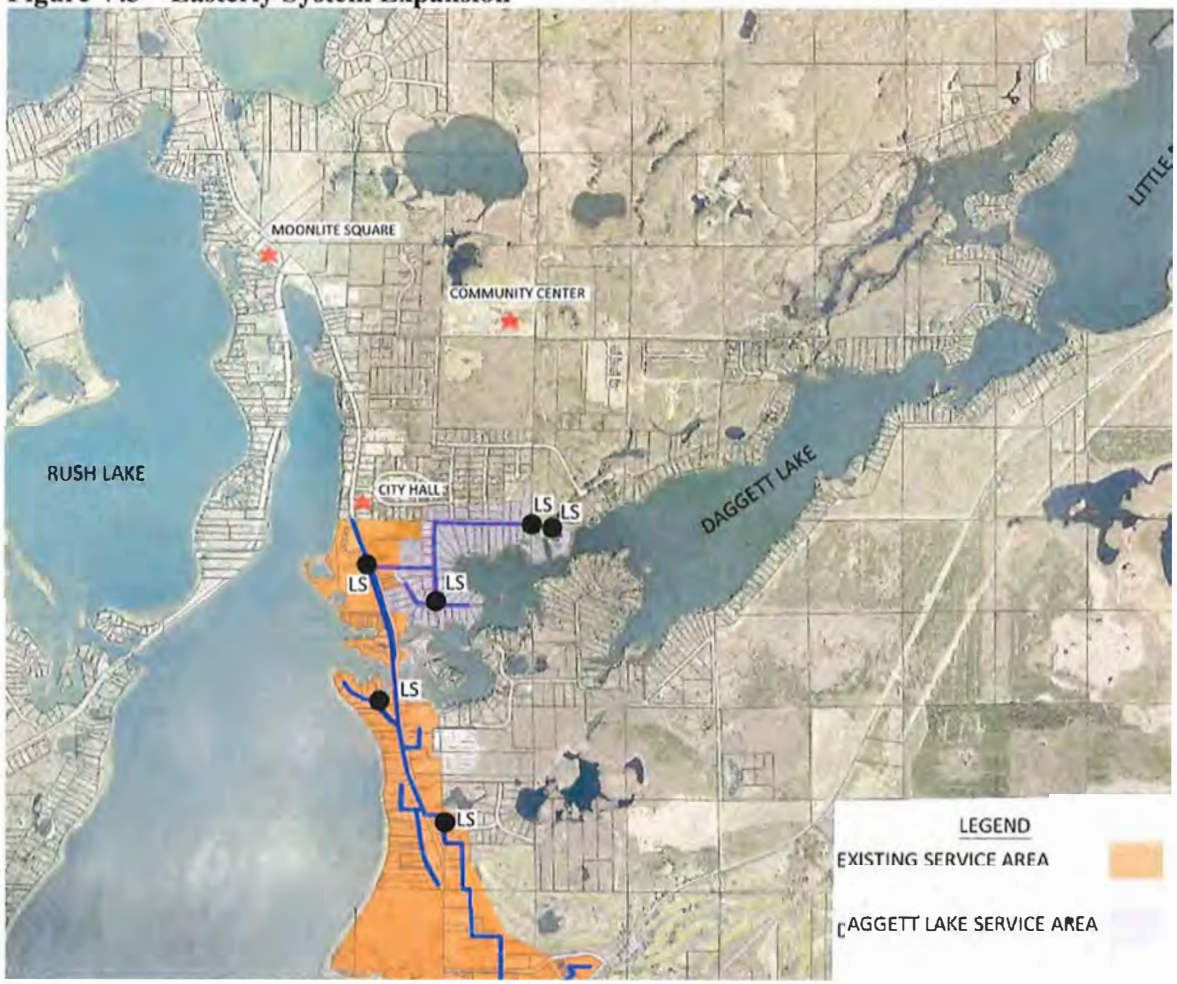
This extension concept was previously considered by the City in 2016 to serve properties along CSAH 3 as development increased in that area. The information obtained from City staff shows a

conceptual extension of sanitary sewer which includes about 7,000 feet of gravity sewer pipe, 1,000 feet of forcemain, and 1 lift station. The conceptual expansion includes gravity sewer pipe along a portion of County Rd 37, Wildwood Drive, and Whitebirch Lane. A lift station is located near the intersection of Whitebirch Lane and Wildwood Drive on the easterly most extent of the conceptual service area. With this concept, 78 connection ERUs were estimated.

Easterly System Expansion – Daggett Lake Service Area

This expansion concept begins on the existing system located on CSAH 66 at Daggett Bay Road and expands the sanitary sewer system in an easterly direction toward Daggett Lake as depicted in Figure V.3 below.

Figure V.3 – Easterly System Expansion



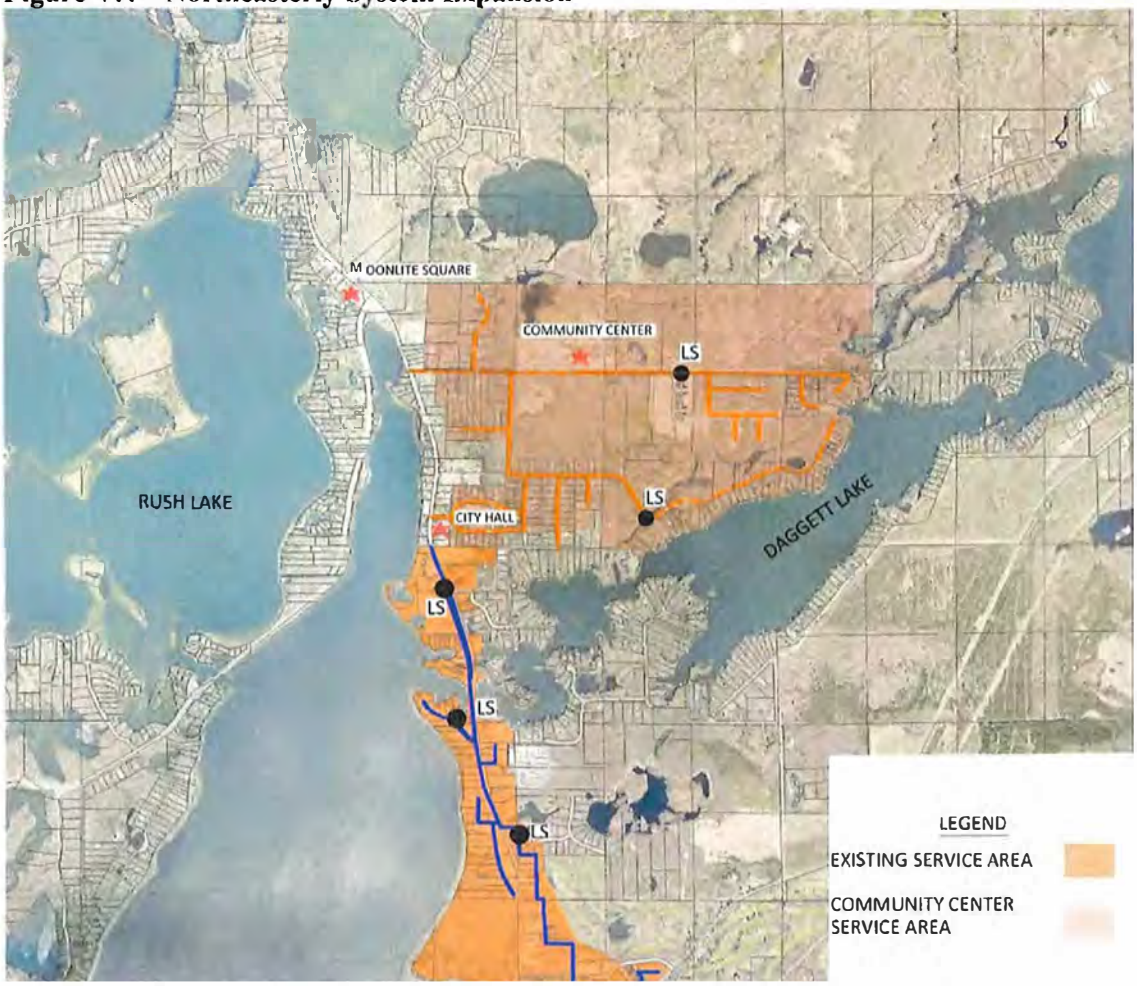
The original sanitary sewer expansion was considered by the City in 2010 as an expansion to extend service along Daggett Bay Road, Norway Trail, Brook Street, Kimball Road, and Kimball Court to serve properties east of City Hall and along the northwesterly side of Daggett Lake. The

original concept included the installation of about 4,000 feet of gravity sewer pipe and 3 grinder lift stations. Expansion to the east along Daggett Lake would provide service to smaller lot, higher density properties along lake shore. With this concept, 56 connection ERUs were estimated.

Northeasterly System Expansion – Community Center Service Area

This expansion concept begins off conceptual expansion of the sanitary system on CSAH 66 at Log Landing and at Daggett Pine Road as depicted in Figure V.4 below.

Figure V.4 – Northeasterly System Expansion



The expansion concept extends sanitary sewer system to the northeast to include properties along Log Landing, Headquarters Drive, Lumberjack Lane, Bunkhouse Road, Blacksmith Place, Tall Timbers Trail, Miller Road, Mary Lane, and along Daggett Pine Road to Daggett Lane which is about 1,000 feet east of Wilderness Trail. In addition, system expansion includes development south of Daggett Pine Road along Deer Ridge Drive, Ridgeway Road, Aspen Drive, Aspen Way, Aspen Court, Wilderness Trail, Waterwood Court, and along the north shore of Daggett Lake on Backdahl Road. The conceptual system expansion is comprised of over 18,000 feet of gravity

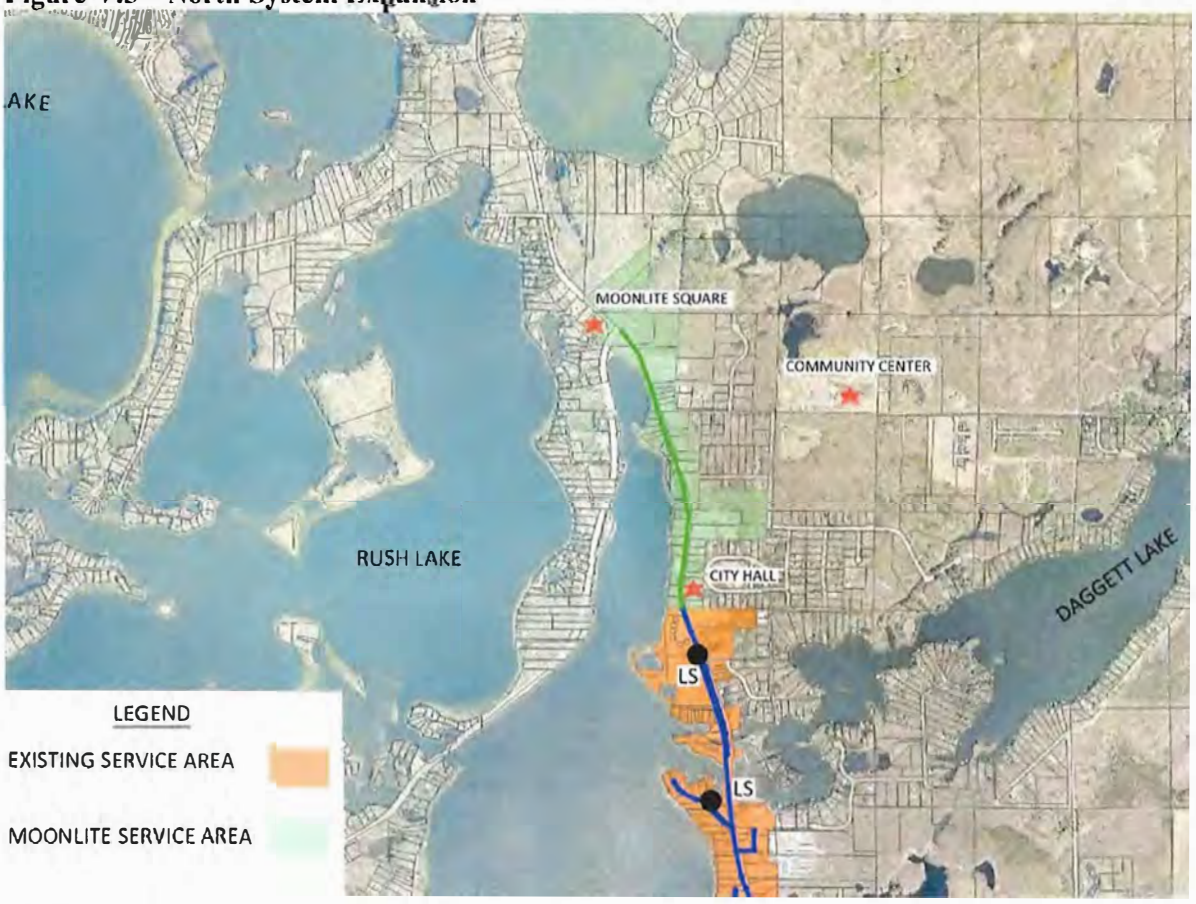
sewer pipe and 2 lift stations in the off-lake areas, and low-pressure sewer pipe systems along Daggett Lake and Egret Road. With this concept, 176 ERU connections were estimated.

Expansion to the northeast along Daggett Lake would provide service to smaller lot, higher density properties along lake shore and provides further opportunity for development of off lake housing to provide more affordable housing stock within the City as identified in the City Comprehensive Plan Update.

North System Expansion – CSAH 66/Moonlite Service Area

This expansion concept begins on the existing system located on CSAH 66 near the north termini of the current system and expands northerly to the Moonlite Square area as depicted in Figure V.5. This expansion concept was developed in 2018 during preparation of the Moonlite Bay Sanitary Sewer Extension Preliminary Engineering Report and is currently being considered by the City as a sanitary sewer extension to provide service to commercial properties with current and anticipated future onsite wastewater treatment issues. The system expansion would be solely gravity collection of wastewater and requires installation of over 4,200 feet of 10" gravity sewer pipe below CSAH 66. With this concept, 82 connection ERUs were estimated.

Figure V.5 – North System Expansion



Remaining Potential Future Expansion

Expansion of the sanitary sewer collection system beyond this "first ring" of expansion concepts in the remaining potential future system areas is considered beyond the scope of this study effort and as a result further expansion consideration will be from a high level, macro scale. Factors of importance in these areas are limiting tree removal and impact to the up north feel, limiting groundwater/dewatering impacts, and dealing with higher development density in more remote building locations.

South Service Areas – The remaining future potential service areas near CR 103 and CSAH 36 are predominantly off lake, excluding those along Fawn Lake and Big Pine Lake. In the off lake parcels it is assumed that system expansion can be accomplished with strategically located lift station installation and gravity pipe collection system. Along the lakes where ground elevations are nearer the assumed water table and alignment corridors have limited space, it is assumed that low-pressure sewer systems would be utilized in addition to the traditional gravity collection and pumping.

East Service Areas – The remaining future potential service areas are in an easterly direction along the southerly shore of Daggett Lake and Little Pine Lake. In the off lake parcels it is assumed that system expansion can be accomplished with strategically located lift station installation and gravity pipe collection, although some lower areas may be better served with a low-pressure sewer system. Along the south and north shores of Daggett Lake and Little Pine Lake, lot size, building density, ground elevations and limited space corridors present challenges to expanding the system. It is assumed that low-pressure sewer systems would be utilized in addition to the traditional gravity collection and pumping in this area.

North Service Areas – The remaining future potential service areas are in a northerly direction along shores of Ox Lake, along Anchor Point, and in the Manhattan Point Area. In the Ox Lake service area, undulating terrain with narrow, curvy road corridors present challenges to extending gravity sewer pipe in a cost-effective manner. It is assumed that low-pressure systems would be utilized in this service area. Along Anchor Point it is assumed that a system expansion would balance gravity pipe, low pressure sewer pipe, and lift station/forcemain installations to limit disturbance and avoid extensive groundwater related issues. With the recent reconstruction of Anchor Point, a future system extension be more cost effective with low pressure sewer pipe and lift station/forcemain installation only.

In the Manhattan Point area, it is assumed that a system expansion would balance gravity pipe, low pressure sewer pipe, and lift station/forcemain installations to limit disturbance and avoid extensive

groundwater related issues as well. The City could expand the system in the future to include collecting wastewater from the Manhattan Point area for treatment at the WWTP. Another potential option identified by City staff was the idea of siting a satellite wastewater treatment facility on vacant land within the Manhattan Point area rather than pumping the wastewater into the City collection system. This is an option that would require further evaluation to determine the benefits or challenges that come with this option.

Westerly Service Areas – The remaining future potential service areas are in a westerly direction along CSAH 16 and including lake shore lots along Rush Lake and the west lake shore of Cross Lake. In this service area, is it assumed that system expansion would have to balance the use of gravity sewer, low-pressure sewer pipe, and lift station/forcemain installations to limit disturbance and avoid extensive groundwater related issues.

VI. Estimated Improvement Costs

To assist the City of Crosslake consider future costs associated with expansion of the sanitary sewer collection system, preliminary estimates of project cost for the conceptual system expansions identified in section V of this report (shown below in Figure VI.1) were prepared.

Figure VI.1 – Combined System Expansions

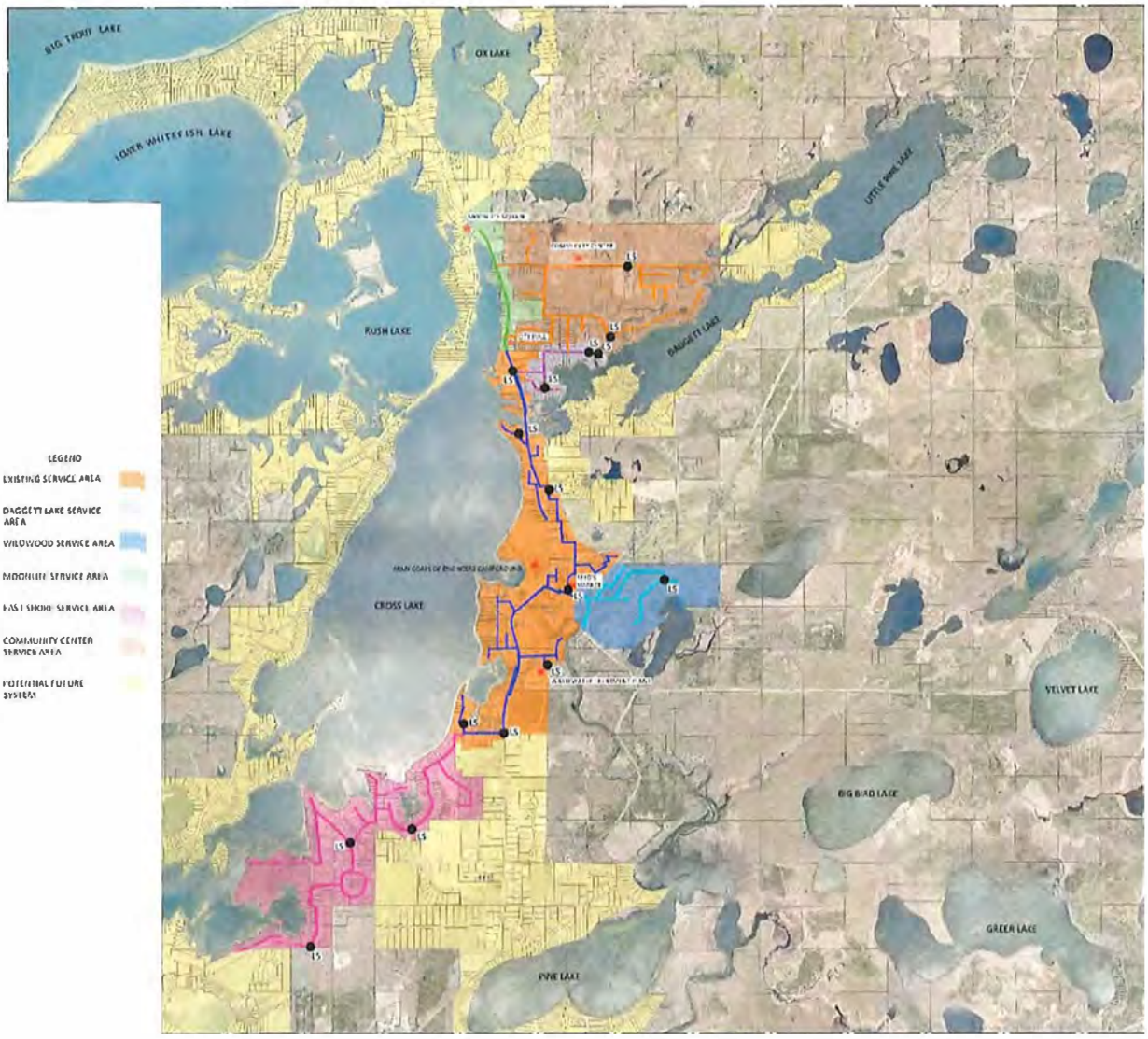


Table VI.1 below summarizes the budgetary project cost associated with each sanitary sewer collection system expansion concept. The costs represented in this section are based on projects similar in nature and are subject to industry and global market changes. A contingency factor has been included to account for the preliminary nature of the study, construction items not included, and variances in unit prices due to market demands. An assumed project development cost factor has been included in these costs to account for anticipated engineering, financial, legal, and

administrative fees associated with the project. Detailed engineer's opinion of probable cost information has been provided in Appendix C

Table VI.1 Budgetary Project Cost Estimates

Sanitary Sewer Collection System Expansion	Budget Cost
South System Expansion (East Shore Service Area)	$4,876,100
Southeasterly System Expansion (Wildwood Service Area)	$2,175,500
Easterly System Expansion (Daggett Lake Service Area)	$1,446,400
Northeasterly System Expansion (Community Center Service Area)	$4,185,400
North System Expansion (CSAH 66/Moonlite Service Area)	$1,280,500

Expansion of the sanitary sewer collection system beyond this "first ring" of expansion is considered beyond the scope of this study effort and as a result further budgetary cost information for these outlying potential future system service areas will be from a high level and on a macro scale that derives the anticipated costs more generally.

North Service Areas – The remaining future potential service areas comprise about 950 acres in the northern part of the City and include the Manhattan Point, Anchor Point, and Ox Lake areas. These areas have significant lot density and development. A budgetary high-level cost for providing system expansion into these areas is estimated to be $9.5 million and is based on an assumed unit cost of $10,000 per acre.

Westerly Service Areas – The remaining future potential service areas comprise about 1,150 acres in the westerly part of the City and include development along CSAH 16, Rush Lake, and the western shores of Cross Lake. These areas have significant lot density and development, as well as, remote locations where the groundwater elevation is anticipated to be closer to the ground surface. A budgetary high-level cost for providing system expansion into these areas is estimated to be $14.4 million and is based on an assumed unit cost of $12,500 per acre.

South Service Areas – The remaining future potential service areas comprise about 1,100 acres in the south part of the City and include development along Fawn Lake, County Road 103, Big Pine Lake, and CSAH 36. These areas have pockets of lot density and development with large remaining tracts for off-lake lot development. A budgetary high-level cost for providing system expansion into these areas is estimated to be $11 million and is based on an assumed unit cost of $10,000 per acre.

East Service Areas – The remaining future potential service areas comprise about 360 acres in the east part of the City and includes development along the south shore of Daggett Lake and along the south and north shores of Little Pine Lake. These areas have significant lot density and development, as well as remote locations where the ground water elevation is anticipated to be

closer to the ground surface. A budgetary high-level cost for providing system expansion into these areas is estimated to be $3.6 million and is based on an assumed unit cost of $10,000 per acre.

VII. Preliminary Rate Assessment/Financing Overview

The City has a median household income (MHI) of $59,605 (basis: American Community Survey 5-year average 2012-2016) which will put the City in a weak position when competing for grant funds with other communities. For comparison, the City's MHI is shown in Table VII.1 relative to some neighboring communities and other communities that have received funding.

Table VII.1- Median Household Income (MHI) Comparison

City	Population (ACS 5 yr)	MHI (ACS 5 yr)
Crosslake	1,835	$59,605
Aitkin	2,274	$29,237
Pequot Lakes	2,501	$39,241
Crosby	2,537	$35,363
Emily	683	$41,964
Pine River	808	$29,032
Sebeka	664	$35,583
Wadena	4,079	$38,631

The City may potentially be eligible for the State Revolving Fund (SRF) low interest loans, particularly if existing unsewered areas are being served with system expansion. It would be important for the City to be able to show need so that the proposed improvement scores higher in priority points, which would increase the chance for funding assistance. Some common situations that increase the City's need would be if local water quality is designated as impaired, or if the City has documentation regarding failing systems. This program offers financing for 20-years at 1% to 3% interest depending upon current rates or other discounts. The SRF program requires submittal of a Facility Plan by March of each year. The submitted projects are then ranked with funding available the next calendar year.

Historically, we understand that City funding revenues used to pay for the past sewer project consisted of Sewer Utility Funds (user fees and Sewer Availability Charge (SAC) fees), City Reserve Funds, and the General Fund (local levy). New connections within the current wastewater collection system framework are assessed a SAC fee of $6,500 per Equivalent Residential Unit (ERU) for commercial connection and a fee of $4,000 per ERU for residential connection. These SAC fees are consistent with other SAC fees charged in rural Minnesota. Based on the connection ERU estimates for each system expansion concept, SAC fees generated are summarized in Table VII.2.

Based on our experience with similar type municipal projects and our understanding of the City of Crosslake's current MHI we do not believe the proposed project would qualify for discounted

interest financing or grants through infrastructure funding programs (such as the Clean Water Revolving Fund) typically used for municipal improvements.

Table VII.2 – System Expansion SAC Fee Estimate

Sanitary Sewer Collection System Expansion	SAC Fees
South System Expansion (East Shore Service Area)[1]	$1,124,000
Southeasterly System Expansion (Wildwood Service Area)[2]	$332,000
Easterly System Expansion (Daggett Lake Service Area)[2]	$224,000
Northeasterly System Expansion (Community Center Service Area)[1]	$704,000
North System Expansion (CSAH 66/Moonlite Service Area)[2]	$475,500

[1] Based on assumed residential ERU connections
[2] Based on original study estimate for ERU connections

On certain manufacturing or industrial development opportunities some cities have applied for and obtain funding from the Department of Employment and Economic Development (DEED) for infrastructure improvements to assist with job creation and growth. It is understood that the City's financial advisor would provide options and recommendations regarding how City costs associated with future system expansions could be financed.

The City charges a sewer usage fee of $48 per month for residential properties and $48/8,000 gallons/month for commercial properties. The residential flow basis is 8,000 gallons per month. For comparison, the sewer usage fee for 8,000 gallons was identified for a few neighboring communities and is shown below:

Table VII.3 – Sewer Usage Rate Comparison

City	Sewer Usage Rate	Fee (8,000 gal)
Crosslake	$48/month (Res) $48/month per 8,000 gal (Com)	$48 $48
Aitkin	$5.00 User; $18.50/2,000 gal; $4.80/1,000 gal after (Res) $7.00 User; $18.50/2,000 gal; $4.80/1,000 gal after (Com)	$52.30 $54.30
Pequot Lakes	$23.26/2,000 gal; $11.72/1,000 gal after (Res) $24.66/5,000 gal; $11.72/1,000 gal after (Com)	$93.94 $38.72
Crosby	$5 Base; $12.42/1,000 gal	$104.36
Emily	$143.29/quarter (Res) $161.20/quarter for 3,000 gal; $2.39/1,000 gal after (Com)	$44.76 $65.68
Pine River	$42/month flat rate (Res) $42/month to 8,000 gal; $6.40/1,000 gal beyond (Com)	$42 $42
Wadena	$10 Base; $4.10/100 cu ft; $10 Service Charge (Res) $10 Base; $4.10/100 cu ft; $10 Service Charge (Com) Same as above; $4.40/100 cu ft; (Com Food Preparer)	$63.85 $63.85 $67.06

VIII. Recommendation for Improvements & Implementation Schedule

In 2004, the City installed the original sanitary sewer collection system to go along with their new WWTP. Since then, there have been system users added primarily in and around the Town Square area and there has been development considered that if completed would have used up some of the WWTP capacity.

In section III of this report, a simplistic assessment was made of the remaining WWTP capacity based on the ERU flow basis. Current WWTP flows are about 35% of the capacity. On a strictly ERU basis, it is estimated that 200 ERUs of the total 547 ERUs are reserved, leaving 347 ERUs of WWTP capacity remaining. It is important to note that this basis anticipates 274 gpd per ERU per Chapter 50 of the City Code. This is a conservative number as water conservation and efficient appliances are resulting in a lower water usage per capita.

In January 2018, connection and user charges were reviewed for an 87-unit assisted living facility and a 36-unit apartment building. Together, those two development activities have been determined to equate to 65 connection ERUs. Although the flow may vary from the 274 gallons established for the connection ERU, for the purpose of this study, it is assumed that the WWTP available capacity would be reduced from 347 ERUs to 282 ERUs and theoretically the WWTP flows would be at about 52% of capacity.

Ultimately the City needs to determine if it wants to fully utilize the WWTP capacity and revenue potential by connecting additional homes and businesses and if so identify areas of priority. However, based on the information identified during this study and our familiarity sewer related issues in the City, we have prioritized the system expansion concepts in order of importance, with the most important first and the least important last. Our recommended priority is listed below and provided a brief explanation regarding our perspective for the top three priorities:

1. North System Expansion (CSAH 66/Moonlite Service Area)
2. Easterly System Expansion (Daggett Lake Service Area)
3. South System Expansion (East Shore Service Area)
4. Southeasterly System Expansion (Wildwood Service Area)
5. Northeasterly System Expansion (Community Center Service Area)

Priority 1: North System Expansion (CSAH 66/Moonlite Service Area) – We recommend this system expansion as the first priority due to the current and anticipated sewer issue in the Moonlite Bay & Moonlite Square areas. Moonlite Bay approached the City earlier this year for connection to the City system after learning their system is failing. Even though they have taken measures to rejuvenate their system we believe it is only a matter of time before their system is no longer able to

be rejuvenated or replaced in a cost-effective manner. We also are concerned based on conversations with staff that the commercial activity and use in this area has grown and will continue to grow beyond the original design capabilities of their onsite system. Based on the Moonlite Bay Preliminary Engineering Report, the estimated cost to expand the system would be $1,280,000 and the City would anticipate $475,500 in SAC fees. In addition, it is estimated that the expansion would allow for 82 connection ERUs to be added to the system. If the flow matched the connection ERU basis of 274 gpd, the available WWTP capacity would be lowered from 282 ERUs to 200 ERUs, which would mean about 63% of the WWTP would be used.

Priority 2: Easterly System Expansion (Daggett Lake Service Area) – We recommend this system expansion as the second priority due to the density, lot size, and proximity to lake shore. We also understand that the City has considered expansion into this area in the past. The estimated cost to expand the system would be $1,446,400 and the City would anticipate $224,000 in SAC fees. In addition, it is estimated that the expansion would allow for 56 connection ERUs to be added to the system. If the flow matched the connection ERU basis of 274 gpd, the available WWTP capacity would be lowered from 200 ERUs to 144 ERUs, which would mean about 74% of the WWTP would be used.

Priority 3: South System Expansion (East Shore Service Area) – We recommend this system expansion as the third priority due to density, lot size, and proximity to the lake shore. The expansion also allows for the opportunity to extend utilities into off lake properties for development of more affordable housing stock in the City. The total estimated cost for this system expansion (i.e. all four gravity segments) is $4,876, 100 and the City would anticipate about $1,124,000 in SAC fees. In addition, it is estimated that the expansion would allow for 281 connection ERUs to be added to the system. This degree of extension is anticipated to exceed the capacity of the current WWTP. The expansion of the first expansion segment would allow for 70 connection ERUs to be added to the system. If the flow matched the connection ERU basis of 274 gpd, the available WWTP capacity would be lowered from 144 ERUs to 74 ERUs, which would mean about 86% of the WWTP would be used.

At the point at which 86% of the WWTP capacity is in use, it would be our recommendation that the City delay further system expansion and begins the process of expanding the WWTP to gain treatment capacity. If actual flows to the WWTP were less than the ERU flow basis of 274 gpd and capacity remained in the WWTP, we would recommend the City complete second expansion segment in the East Shore Service area. The expansion of the second expansion segment would allow for 59 connection ERUs to be added to the system

The purpose of this study is to identify and provide information that allows the City to understand wastewater management so that informed decisions can be made in the future. With that said, we recognize that the City has been considering road improvements but has been uncertain if sanitary sewer infrastructure should be installed with potential road improvement. It is likely that some of the recommendations in this study if followed would lead to the need to reconstruction City roads. In addition, it is anticipated that the recommendation to reconstruct a City road may lead to the recommendation to expand the sewer system at the same time. It will be important for the City to take the information identified in this study and use it with the available road condition information identified in the City Pavement Management Plan so that a representative capital improvement plan can be created that uses public funds in a responsible, cost effective manner.

Appendix A: Crosslake WWTP NPDES Permit

Minnesota Pollution Control Agency

Detroit Lakes Office | 714 Lake Avenue | Suite 220 | Detroit Lakes, MN 56501 | 218-847-1519

800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us | Equal Opportunity Employer

May 23, 2012

The Honorable Darrell Schneider
Mayor, City of Crosslake
37028 County Road 66
Crosslake, MN 56442-2528

RE: Final Reissued NPDES/SDS Permit No. MN0064882
Crosslake Wastewater Treatment Facility
T137N, R27W, Section 21, Crosslake Township, Crow Wing County, Minnesota

Dear Mayor Schneider:

Enclosed is the final National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for your facility. This permit supersedes an earlier NPDES/SDS permit that was issued on June 29, 2007. All comments submitted in writing during the public notice comment period have been considered in the formulation of the terms and conditions of the permit.

It is the responsibility of the Permittee to maintain compliance with all of the terms and conditions of this permit. Please carefully review the entire permit. A "Submittals Checklist" that is specific for your facility is also enclosed for your use. You may find this checklist to be a convenient tool in tracking the due dates and status of submittals required by the final issued permit.

Special attention should be directed to the following:

Limits and Monitoring Requirements

Flow Monitoring on Discharge Monitoring Reports (DMRs) – Effluent facility flow monitoring data will now be reported on the effluent DMR (SD001). Influent facility flow monitoring data will be reported on the influent DMR (WS001).

Phosphorus - Phosphorus is a common constituent in many wastewater discharges and a pollutant that has the potential to negatively impact the quality of Minnesota's lakes, wetlands, rivers, and streams. Phosphorus promotes algae and aquatic plant growth often resulting in decreased water clarity and oxygen levels. In addition to creating general aesthetic problems, these conditions can also impact a water body's ability to support healthy fish and other aquatic species. Therefore, phosphorus discharges are being carefully evaluated throughout the state.

You are required to meet a phosphorus limit as specified in the limits and monitoring section of this permit. Although you are not required to prepare a Phosphorus Management Plan (PMP),

elimination or reduction of phosphorus at the source will decrease the influent load to the wastewater treatment facility and has the potential to improve treatment efficiency and reduce treatment costs. The MPCA strongly encourages you to identify and eliminate/reduce sources of phosphorus to, and optimize phosphorus management within, your wastewater treatment facility.

All phosphorus samples must be analyzed by a certified laboratory and the data submitted to the MPCA. If your laboratory would like more information about becoming certified, please call the Environmental Laboratory Certification Unit at 612-676-5200. Samples must be collected in a clean bottle (preferably cleaned by a certified laboratory) that was not washed with phosphate detergent. Also, a sulfuric acid preservative must be added immediately after the sample is collected, and it must be stored at four degrees Celsius until analysis. If a contract laboratory is used, the bottle and preservative would typically be provided by the laboratory analyzing the sample. *Additional Monitoring Requirements* - The draft permit requires additional monitoring for Nitrite plus Nitrate-Nitrogen, Total Kjeldahl Nitrogen, and Total Dissolved Solids at a frequency of two times per year for the five-year term of the permit. The data will be recorded on a custom supplemental form provided by the MPCA and must be submitted with the DMR for the month when the sample is collected. These additional parameters are being added to every permitted municipal facility with an average wet weather design flow of 100,000 gallons per day or greater.

Surface Water Monitoring Stations – Minnesota Rules Chapter 7050.0224 includes a 10 mg/L water quality standard for sulfates applicable to water used for production of wild rice during periods when rice may be susceptible to damage by high sulfate levels. The MPCA currently has limited information about effluent sulfate levels. In order to determine if sulfate in wastewater effluent has potential to contribute to a violation of the wild rice production sulfate standard, the MPCA is asking dischargers upstream of waters known to have wild rice to monitor for sulfate. The Permittee's facility discharges upstream of Pine Lake which is a lake that has been identified by the Minnesota Department of Natural Resources as a water used for the production of wild rice. As a result, there are three new surface water monitoring stations in the limits and monitoring requirements of this draft permit that require sampling for total sulfates: SW002 – Pine River Downstream Monitoring, SW004 – Pine River Upstream Monitoring, and SW005 – Pine Lake Monitoring.

Chapter 2: Surface Water Stations

This Chapter has been included in the draft permit to describe the sampling location, frequency, protocol, and reporting for the new surface water monitoring stations. Please read this Chapter carefully. Results will be submitted on a monthly custom supplemental report form.

Chapter 5: Biosolids Land Application

This permit chapter requires biosolids to be treated to meet specific standards, and specifies monitoring, recordkeeping, reporting, and general requirements for biosolids that are applied to the land. Unless they are exceptional quality biosolids, sites to which biosolids are applied are approved by the MPCA by the procedures found in Minn. R. 7041.0800.

Chapter 6: Pretreatment

New state pretreatment rules, Minn. Rules, Chapter 7049, are now effective and their requirements are incorporated into this chapter. Please review these permit requirements carefully.

Chapter 7: Total Facility Requirements

Electronic Discharge Monitoring Reports (e-DMRs) - Discharge Monitoring Reports can now be completed, signed and submitted electronically using MPCA's Online Services. To begin using the e-DMRs, go to: https://netweb.pca.state.mn.us/private/.

Questions about your permit should be directed to the appropriate staff contacts listed on the first page of your permit.

Sincerely,

Ronald R. Swenson, Supervisor
North Central Regional Office
Municipal Division

RRS/HC/db

Enclosures

cc: Tom Swenson, City Administrator, Crosslake (w/enclosures]
Ted Strand, Public Works Director, Crosslake (w/enclosures]
Mark Hallan, Widseth Smith Nolting & Associates, Baxter (w/enclosures)

STATE OF MINNESOTA

Minnesota Pollution Control Agency

Municipal Division

National Pollutant Discharge Elimination System (NPDES)/
State Disposal System (SDS) Permit MN0064882

PERMITTEE:	City of Crosslake
FACILITY NAME:	Crosslake Wastewater Treatment Facility
RECEIVING WATER:	Pine River (Class 2B, 3C, 4A, 4B, 5, 6 Water)

TOWNSHIP:	Cross Lake	**COUNTY:**	Crow Wing
ISSUANCE DATE:	**May 23, 2012**	**EXPIRATION DATE:**	**April 30, 2017**

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee to operate a disposal system at the facility named above and to discharge from this facility to the receiving water named above, in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with Minnesota and US statutes and rules, including Minn. Stat. chs. 115 and 116, Minn. R. chs. 7001, 7041, 7049, 7050, 7053, 7060, and the US Clean Water Act.

This permit is effective on the issuance date identified above, and supersedes the previous permit that was issued for this facility on June 29, 2007. This permit expires at midnight on the expiration date identified above.

Signature: _____ FOR

Ronald R. Swenson, Supervisor
North Central Regional Office
Municipal Division

for The Minnesota Pollution Control Agency

Submit DMRs to:
Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Submit Other WQ Reports to:
Attention: WQ Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St Paul, MN 55155-4194

Questions on this permit?

- For DMR and other permit reporting issues, contact: Jennifer Satnik, 651-757-2692.
- For specific permit requirements or permit compliance status, contact: Herschel Blasing, 218-316-3860.
- General permit or NPDES program questions, contact: MPCA, 651-282-6143 or 1-800-657-3938.

Table of Contents

Facility Description

The Crosslake Wastewater Treatment Facility (Facility) is located in the SW 1/4 of SW 1/4 of Section 21, Township 137 North, Range 27 West, Cross Lake Township, Crow Wing County, Minnesota. This is a Class B Facility.

Major components of the Facility include:
1 Mechanical Bar Screen
1 Grit Removal Unit
2 Activated Sludge Units- extended aeration, oxidation ditches
2 Secondary Clarifiers
2 Gravity Sand Filters - with backwash
Phosphorus Removal – chemical addition
Ultraviolet Disinfection
2 Aerobic Digesters (for biosolids) - designed as a process control, approximately 61,000 gallons each
Digester Aeration Blowers (3) and Heat Exchanger

The existing Facility consists of approximately 14,500 feet of 8-inch gravity sewer, 10,400 feet of 10-inch gravity sewer, 6,200 feet of 6-inch diameter force main, an activated sludge plant, and biosolids treatment and storage. The Facility has a continuous discharge (SD001) to the Pine River (Class 2B, 3C, 4A, 4B, 5, 6 Water) which flows to Pine Lake (Class 2B, 3C, 4A, 4B, 5, 6 Water). The Facility is designed to treat an average wet weather flow of 150,000 gallons per day (gpd) with a five-day carbonaceous biochemical oxygen demand concentration of 240 milligrams per liter.

The Facility is further described in plans and specifications on file with the Minnesota Pollution Control Agency by the engineering firm of Widseth Smith Nolting and Associates, Inc., Baxter, Minnesota.

In accordance with MPCA rules regarding nondegradation for all waters that are not Outstanding Resource Value Waters, nondegradation review is required for any new or expanded significant discharge (Minn. R. 7050.0185). A significant discharge is 1) a new discharge (not in existence before January 1, 1988) that is greater than 200,000 gallons per day to any water other than a Class 7 water or 2) an expanded discharge that expands by greater than 200,000 gallons per day that discharges to any water other than a Class 7 water or 3) a new or expanded discharge containing any toxic pollutant at a mass loading rate likely to increase the concentration of the toxicant in the receiving water by greater than one percent over the baseline quality. The flow rate used to determine significance is the design average wet weather flow. The January 1, 1988 design average wet weather flow for this facility is 9,000 gpd.

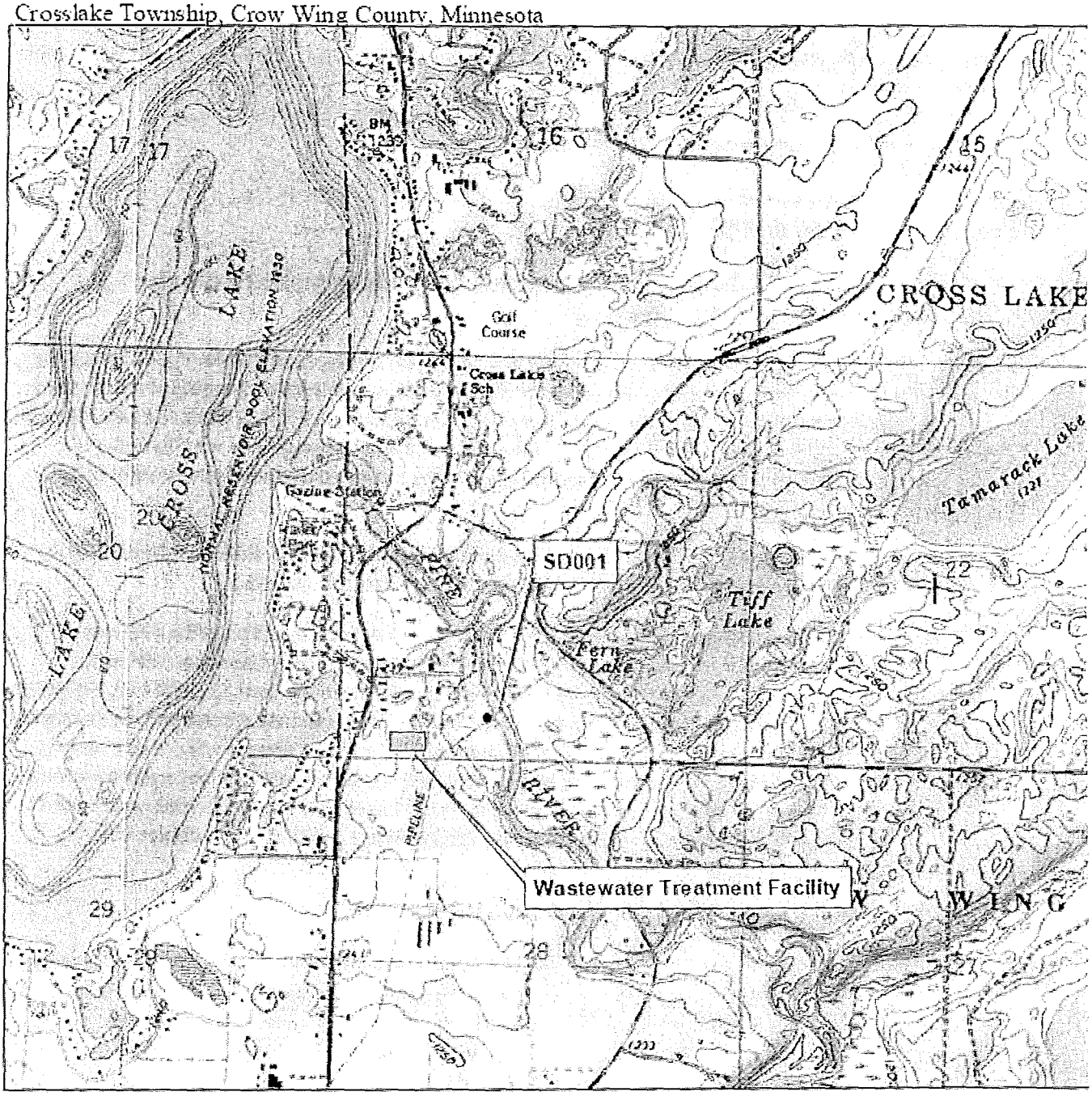
This Permit also complies with Minn. R. 7053.0275 regarding anti-backsliding.

Any point source discharger of sewage, industrial, or other wastes for which a NPDES permit has been issued by the MPCA that contains effluent limits more stringent than those that would be established by parts 7053.0215 to 7053.0265 shall continue to meet the effluent limits established by the permit, unless the permittee establishes that less stringent effluent limits are allowable pursuant to federal law, under section 402(o) of the Clean Water Act, United States Code, title 33, section 1342.

The location of the Facility is shown on the map on page 4. The location of designated monitoring stations is specified on the "Summary of Stations" on page 5.

Topographic Map of Permitted Facility

MN0064882, Crosslake Wastewater Treatment Facility
SW 1/4 of Section 21, T137N, R27W
Crosslake Township, Crow Wing County, Minnesota



Map produced by: MPCA Staff, 03/02/2012
Source: USA Topo
Scale: 1:20,000

0 0.15 0.3 0.6 Miles

Surface Discharge Stations

Station	Type of Station	Local Name	PLS Location
SD001	Effluent To Surface Water	Surface Water Discharge	SW Quarter of Section 21, Township 137 North, Range 27 West

Surface Water Stations

Station	Type of Station	Local Name	PLS Location
SW002	Stream/River/Ditch, Downstream	Pine River Downstream Monitoring	SE Quarter of the NE Quarter of Section 28, Township 137 North, Range 27 West
SW004	Stream/River/Ditch, Upstream	Pine River Upstream Monitoring	SW Quarter of the NW Quarter of Section 21, Township 137 North, Range 27 West
SW005	Lake/Reservoir	Pine Lake Monitoring	Section 34, Township 137 North, Range 27 West

Waste Stream Stations

Station	Type of Station	Local Name	PLS Location
WS001	Influent Waste	Influent Waste Stream	SW Quarter of Section 21, Township 137 North, Range 27 West

The Permittee shall comply with the limits and monitoring requirements as specified below.

) 001: Surface Water Discharge

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
)D, Carbonaceous 05 Day (20 Deg	14.2	kg/day	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
3OD, Carbonaceous 05 Day (20 Deg	25	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
)D, Carbonaceous 05 Day (20 Deg	22.7	kg/day	Maximum Calendar Week Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
3OD, Carbonaceous 05 Day (20 Deg	40	mg/L	Maximum Calendar Week Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
)D, Carbonaceous 05 Day (20 Deg Percent Removal	85	%	Minimum Calendar Month Average	Jan-Dec	Calculation	1 x Week	
ecal Coliform, MPN or Membrane ter 44.5C	200	#100ml	Calendar Month Geometric Mean	Apr-Oct	Grab	1 x Week	
ow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
low	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
ow	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
Nitrite Plus Nitrate, Total (as N)	Monitor Only	mg/L	Calendar Month Average	Apr, Sep	24-Hour Flow Composite	1 x Month	
trogen, Ammonia, Total (as N)	Monitor Only	mg/L	Calendar Month Average	Apr, Sep	24-Hour Flow Composite	1 x Month	
Nitrogen, Kjeldahl, Total	Monitor Only	mg/L	Calendar Month Average	Apr, Sep	24-Hour Flow Composite	1 x Month	
Oxygen, Dissolved	Monitor Only	mg/L	Calendar Month Minimum	Jan-Dec	Grab	1 x Day	1
H	9.0	SU	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	1
pH	6.0	SU	Calendar Month Minimum	Jan-Dec	Grab	1 x Week	1
osphorus, Total (as P)	0.6	kg/day	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
Phosphorus, Total (as P)	1.0	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
lids, Total Dissolved (TDS)	Monitor Only	mg/L	Calendar Month Average	Apr, Sep	24-Hour Flow Composite	1 x Month	
Solids, Total Suspended (TSS)	17.0	kg/day	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
lids, Total Suspended (TSS)	30	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
Solids, Total Suspended (TSS)	25.5	kg/day	Maximum Calendar Week Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
lids, Total Suspended (TSS)	45	mg/L	Maximum Calendar Week Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
Solids, Total Suspended (TSS) Percent emoval	85	%	Minimum Calendar Month Average	Jan-Dec	Calculation	1 x Week	

W 002: Pine River Downstream Monitoring

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
ulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Apr-Sep	Grab	1 x Month	3

Crosslake WWTF
Limits and Monitoring Requirements

The Permittee shall comply with the limits and monitoring requirements as specified below.

SW 004: Pine River Upstream Monitoring

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
ulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	Apr-Sep	Grab	1 x Month	2

SW 005: Pine Lake Monitoring

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
ulfate, Total (as SO4)	Monitor Only	mg/L	Calendar Month Maximum	May, Aug	Grab	1 x Month	4

WS 001: Influent Waste Stream

Parameter	Limit	Units	Limit Type	Effective Period	Sample Type	Frequency	Notes
OD, Carbonaceous 05 Day (20 Deg C)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
BOD, Carbonaceous 05 Day (20 Deg)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	24-Hour Flow Composite	1 x Week	
ow	Monitor Only	mgd	Calendar Month Average	Jan-Dec	Measurement, Continuous	1 x Day	
low	Monitor Only	mgd	Calendar Month Maximum	Jan-Dec	Measurement, Continuous	1 x Day	
low	Monitor Only	MG	Calendar Month Total	Jan-Dec	Measurement, Continuous	1 x Day	
H	Monitor Only	SU	Calendar Month Maximum	Jan-Dec	Grab	1 x Week	1
pH	Monitor Only	SU	Calendar Month Minimum	Jan-Dec	Grab	1 x Week	1
hosphorus, Total (as P)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
Precipitation	Monitor Only	in	Calendar Month Total	Jan-Dec	Measurement	1 x Day	
olids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Month Average	Jan-Dec	24-Hour Flow Composite	1 x Week	
Solids, Total Suspended (TSS)	Monitor Only	mg/L	Calendar Month Maximum	Jan-Dec	24-Hour Flow Composite	1 x Week	

otes:
1 -- Analyze immediately.
2 -- Sample to be collected in Pine River at CSAH 3 bridge in Crosslake, just south of the dam.
-- Sample to be collected in Pine River at CSAH 36 south of Crosslake.
-- The spring sample shall be collected in late April or early May with the results submitted on the May DMR. The fall sample shall be collected in late July or early August with the results submitted on the August DMR. The sample is to be collected in Pine Lake just south of where Pine RIver enters the upper portion of the lake.

hapter 1. Surface Discharge Stations

l. Requirements for Specific Stations

1.1 SD 001: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

². Sampling Location

2.1 Samples for Station SD001 shall be collected from the final outlet control structure.

2.2 Samples and measurements required by this permit shall be representative of the monitored activity.

Surface Discharges

3.1 Floating solids or visible foam shall not be discharged in other than trace amounts.

3.2 Oil or other substances shall not be discharged in amounts that create a visible color film.

3.3 The Permittee shall install and maintain outlet protection measures at the discharge stations to prevent erosion.

Discharge Monitoring Reports

4.1 The Permittee shall submit monitoring results for discharges in accordance with the limits and monitoring requirements for this station. If no discharge occurred during the reporting period, the Permittee shall check the "No Discharge" box on the Discharge Monitoring Report (DMR).

ıapter 2. Surface Water Stations

Requirements for Specific Stations

1.1 SW 002, SW 004, SW 005: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

Sampling Location

2.1 Samples for Station SW002 (Pine River - downstream) shall be taken in Pine River at Crow Wing CSAH 36 south of Crosslake.

2.2 Samples for Station SW004 (Pine River - upstream) shall be taken in Pine River at the Crow Wing CSAH 3 bridge in Crosslake just south of the dam.

2.3 Samples for Station SW005 (Pine Lake) shall be taken in Pine Lake; just south of where Pine River enters the upper portion of the lake.

2.4 Grab samples for Stations SW002 and SW004 shall be taken at mid-stream, mid-depth. Grab samples for Station SW005 shall be taken at a depth of between half a foot to one foot below the surface.

Sampling Frequency

3.1 Samples for Stations SW002 and SW004 shall be taken once per month April through September.

3.2 Samples for Station SW005 shall be taken two times per year. For each sampling event, two lake samples should be taken. Each sample shall be taken at a different location in the sampling area. This spreading of the sampling points provides a more representative data set. The first set of samples shall be taken in late April or early May, soon after ice-out on the lake, when weather conditions provide for safe boating. Results shall be reported on the May custom discharge monitoring report. This is at the beginning of the germination season for wild rice. The second set of samples shall be taken during the pre-harvesting period during either the last two weeks of July or the first two weeks of August. Results shall be reported on the August custom discharge monitoring report.

Chapter 2. Surface Water Stations

4. Sampling Protocol

4.1 Sulfate sampling can be done any time of the day. Ideally the 24-hour composite effluent sample and the stream and lake samples should be taken within forty-eight hours of each other. This provides a "snapshot" of sulfate conditions.

4.2 Sample water shall be preserved according to lab instructions and delivered to a certified lab within the minimum holding times. Non-detectable values should be reported in the same manner as the analytical laboratory reports them, as a less than value (e.g. <1.0 mg/l).

4.3 The Permittee shall use U.S. Environmental Protection Agency Method 300.1 or a method approved by the latest version of the reference book "Standard Methods of the Examination of Water and Wastewater" with a reporting limit of not more than 1.0 mg/l.

4.4 All instruments used for field measurements shall be maintained and calibrated to insure accuracy of measurements.

5. Discharge Monitoring Reports

5.1 The Permittee shall report the location, date, time, and results for each surface water sample on the custom discharge monitoring reports.

Chapter 3. Waste Stream Stations

1. Requirements for Specific Stations

1.1 WS 001: Submit a monthly DMR by 21 days after the end of each calendar month following permit issuance.

2. Sampling Location

2.1 Grab and composite samples for Station WS001 shall be collected at a point representative of total influent flow to the system.

Chapter 4. Domestic Wastewater -- Mechanical System

1. Bypass Structures

1.1 All structures capable of bypassing the treatment system shall be manually controlled and kept locked at all times.

2. Sanitary Sewer Extension Permit

2.1 The Permittee may be required to obtain a Sanitary Sewer Extension Permit from the MPCA for any addition, extension or replacement to the sanitary sewer. If a sewer extension permit is required, construction may not begin until plans and specifications have been submitted and a written permit is granted except as allowed in Minn. Stat. 115.07, Subd. 3(b).

3. Operator Certification

3.1 The Permittee shall provide a Class B state certified operator who is in direct responsible charge of the operation, maintenance and testing functions required to ensure compliance with the terms and conditions of this permit.

3.2 The Permittee shall provide the appropriate number of operators with a Type IV certification to be responsible for the land application of biosolids or semisolids from commercial or industrial operations.

hapter 4. Domestic Wastewater -- Mechanical System

3. Operator Certification

3.3 If the Permittee chooses to meet operator certification requirements through a contractual agreement, the Permittee shall provide a copy of the contract to the MPCA, WQ Submittals Center. The contract shall include the certified operator's name, certificate number, company name if appropriate, the period covered by the contract and provisions for renewal; the duties and responsibilities of the certified operator; the duties and responsibilities of the permittee; and provisions for notifying the MPCA 30 days in advance of termination if the contract is terminated prior to the expiration date.

3.4 The Permittee shall notify the MPCA within 30 days of a change in operator certification or contract status.

hapter 5. Biosolids Land Application

l. Authorization

1.1 This permit authorizes the Permittee to store and land apply domestic wastewater treatment biosolids in accordance with the provisions in this chapter and Minnesota Rules, ch. 7041.

1.2 Permittees who prepare bulk biosolids must obtain approval of the sites on which bulk biosolids are applied before they are applied unless they are exceptional quality biosolids. Site application procedures are set forth in Minnesota Rules, pt. 7041.0800.

Compliance Responsibility

2.1 The Permittee is responsible for ensuring that the applicable requirements in this chapter and Minnesota Rules ch. 7041 are met when biosolids are prepared, distributed, or applied to the land.

). Notification Requirements

3.1 The Permittee shall provide information needed to comply with the biosolids requirements of Minnesota Rules, ch. 7041 to others who prepare or use the biosolids.

Chapter 5. Biosolids Land Application

4. Pollutant Limits

4.1 Biosolids which are applied to the land must not exceed the ceiling concentrations in Table 1 and must not be applied so that the cumulative amounts of pollutant in Table 2 are exceeded.

Table 1 Ceiling Concentrations (dry weight basis)

Parameter in units mg/kg
Arsenic 75
Cadmium 85
Copper 4300
Lead 840
Mercury 57
Molybdenum 75
Nickel 420
Selenium 100
Zinc 7500

Table 2 Cumulative Loading Limits

Parameter in units lbs/acre
Arsenic 37
Cadmium 35
Copper 1339
Lead 268
Mercury 15
Molybdenum not established*
Nickel 375
Selenium 89
Zinc 2500

*The cumulative limit for molybdenum has not been established at the time of permit issuance

5. Pathogen and Vector Attraction Reduction

5.1 Biosolids shall be processed, treated, or be incorporated or injected into the soil to meet one of the vector attraction reduction requirements in Minnesota Rules, pt. 7041.1400.

5.2 Biosolids shall be processed or treated by one of the alternatives in Minnesota Rules, pt. 7041.1300 to meet the Class A or Class B standards for the reduction of pathogens. When Class B biosolids are applied to the land, the site restrictions in Minnesota Rules, pt. 7041.1300 must also be met.

Chapter 5. Biosolids Land Application

5. Pathogen and Vector Attraction Reduction

5.3 The minimum duration between application and harvest, grazing or public access to areas where Class B biosolids have been applied to the land is as follows:

a. 14 months for food crops whose harvested parts may touch the soil/biosolids mixture (such as melons, squash, tomatoes, etc.), when biosolids are surface applied, incorporated or injected.

b. 20 months or 38 months depending on the application method for food crops whose harvested parts grow in the soil (such as potatoes, carrots, onions, etc.). The 20 month time period is required when biosolids are surface applied or surface applied and incorporated after they have been on the soil surface for at least four (4) months. The 38 month time period is required when the biosolids are injected or surface applied and incorporated within four (4) months of application.

c. 30 days for feed crops, other food crops (such as field corn, sweet corn, etc.), hay or fiber crops when biosolids are surface applied, incorporated or injected.

d. 30 days for grazing of animals when biosolids are surface applied, incorporated or injected.

e. One year where there is a high potential for public contact with the site, (such as a reclamation site located in populated areas, a construction site located in a city, turf farms, plant nurseries, etc.) and 30 days where there is low potential for public contact (such as agricultural land, forest, a reclamation site located in an unpopulated area, etc.) when biosolids are surface applied, incorporated, or injected.

Management Practices

6.1 The management practices for the land application of biosolids are described in detail in Minnesota Rules, pt. 7041.1200 and must be followed unless specified otherwise in a site approval letter or a permit issued by the MPCA.

6.2 Overall management requirements:

a. Biosolids must not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat.

b. Biosolids must not be applied to flooded, frozen or snow covered ground so that the biosolids enter wetlands or other waters of the state.

c. Biosolids must be applied at an agronomic rate unless specified otherwise by the MPCA in a permit.

d. Biosolids shall not be applied within 33 feet of a wetland or waters of the state unless specified otherwise by the MPCA in a permit.

7. Monitoring Requirements

7.1 Representative samples of biosolids applied to the land must be analyzed by methods specified in Minnesota Rule pt. 7041.3200 for the following parameters: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, Kjeldahl nitrogen, ammonia nitrogen, total solids, volatile solids, phosphorus, potassium and pH.

Chapter 5. Biosolids Land Application

7. Monitoring Requirements

7.2 At a minimum, biosolids must be monitored at the frequencies specified in Table 3 for the parameters listed above, and any pathogen or vector attraction reduction requirements in Minnesota Rules, pts. 7041.1300 and 7041.1400 if used to determine compliance with those parts.

Table 3 Minimum Sampling Frequencies

Biosolids Applied* (metric tons/365-day period)	Biosolids Applied* (tons/365-day period)	Frequency (times/365-day period)
>0 but <290	>0 but <320	1
>=290 but <1,500	>=320 but <1,650	4
>=1,500 but <15,000	>=1,650 but <16,500	6
>=15,000	>=16,500	12

* Either the amount of bulk biosolids applied to the land or the amount of biosolids received by a person who prepares biosolids that are sold or given away in a bag or other container for application to the land (dry weight basis).

7.3 Representative samples of biosolids that are transferred to storage units and are stored for more than two years shall be analyzed by methods specified in Minnesota Rule pt. 7041.3200 for each cropping year they are stored for the following parameters: arsenic, cadmium, copper, lead, molybdenum, nickel, selenium, and zinc. Mercury is specifically NOT included in the stored biosolids analysis because of the short holding time [28 days] required between sampling and analysis.

7.4 Increased sampling frequencies are specified for the parameters listed in Table 4. Sampling at a frequency at twice the minimum frequencies in Table 3 is required if concentrations listed in Table 4 are exceeded (based on the average of all analyses made during the previous cropping year).

Table 4 Increased Frequency of Sampling

Parameter (mg/kg dry weight basis)
Arsenic 38
Cadmium 43
Copper 2150
Lead 420
Mercury 28
Molybdenum 38
Nickel 210
Selenium 50
Zinc 3750

8. Records

8.1 The Permittee shall keep records of the information necessary to show compliance with pollutant concentrations and loadings, pathogen reduction requirements, vector attraction reduction requirements and management practices as specified in Minnesota Rules, pt. 7041.1600, as applicable to the quality of biosolids produced.

9. Reporting Requirements

9.1 By December 31 following the end of each cropping year, the Permittee shall submit a Biosolids Annual Report for the land application of biosolids on a form provided by or approved by the MPCA. The report shall include the requirements in Minnesota Rules, part 7041.1700.

hapter 5. Biosolids Land Application

9. Reporting Requirements

9.2 If, during any cropping year, biosolids were transferred, or not land applied, the Permittee shall submit a Biosolids Annual Report by December 31 following the end of the cropping year. The report shall state that biosolids were not land applied, how much was generated, and where they were transferred to.

9.3 For biosolids that are stored for more than two years, the Biosolids Annual Report must also include the analytical data from the representative sample of the biosolids generated during the cropping year.

9.4 The Permittee shall submit the Biosolids Annual Report to:

Biosolids Coordinator
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

9.5 The Permittee must notify the MPCA in writing when 90 percent or more of any of the cumulative pollutant loading rates listed for any Land Application Sites has been reached for a site.

hapter 6. Pretreatment

Pretreatment - Definitions

1.1 An "Individual Control Mechanism" is a document, such as an agreement or permit, that imposes limitations or requirements on an individual industrial user of the POTW.

1.2 "Significant Industrial User" (SIU) means any industrial user that:

a. discharges 25,000 gallons per day or more of process wastewater;

b. contributes a load of five (5) % or more of the capacity of the POTW; or

c. is designated as significant by the Permittee or the MPCA on the basis that the SIU has a reasonable potential to adversely impact the POTW, or the quality of its effluent or residuals. (Minn. R. 7049.0120, Subp. 24)

Pretreatment - Permittee Responsibility to Control Users

2.1 It is the Permittee's responsibility to regulate the discharge from users of its wastewater treatment facility. The Permittee shall prevent any pass through of pollutants or any inhibition or disruption of the Permittee's facility, its treatment processes, or its sludge processes or disposal that contribute to the violation of the conditions of this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. (Minn. R. 7049.0600)

hapter 6. Pretreatment

2. Pretreatment - Permittee Responsibility to Control Users

2.2 The Permittee shall prohibit the discharge of the following to its wastewater treatment facility:

a. pollutants which create a fire or explosion hazard, including any discharge with a flash point less than 60 degrees C (140 degrees F);

b. pollutants which would cause corrosive structural damage to the POTW, including any waste stream with a pH of less than 5.0;

c. solid or viscous pollutants which would obstruct flow;

d. heat that would inhibit biological activity, including any discharge that would cause the temperature of the waste stream at the POTW treatment plant headworks to exceed 40 degrees C (104 degrees F);

e. pollutants which produce toxic gases, vapors, or fumes that may endanger the health or safety of workers; or

f. any pollutant, including oxygen demanding pollutants such as biochemical oxygen demand, released at a flow rate or pollutant concentration that will cause interference or pass through. (Minn. R. 7049.0140)

2.3 The Permittee shall prohibit new discharges of non-contact cooling waters unless there is no cost effective alternative. Existing discharges of non-contact cooling water to the Permittee's wastewater treatment facility shall be eliminated, where elimination is cost-effective, or where an infiltration/inflow analysis and sewer system evaluation survey indicates the need for such removal.

2.4 If the Permittee accepts trucked-in wastes, the Permittee shall evaluate the trucked in wastes prior to acceptance in the same manner as it monitors sewered wastes. The Permittee shall accept trucked-in wastes only at specifically designated points. (Minn. R. 7049.0140, Subp. 4)

2.5 Pollutant of concern means a pollutant that is or may be discharged by an industrial user that is, or reasonably should be of concern on the basis that it may cause the permittee to violate any permit limits on the release of pollutants. The following pollutants shall be evaluated to determine if they should be pollutants of concern: pollutants limited in this permit, pollutants for which monitoring is required in this permit, pollutants that are likely to cause inhibition of the Permittee's POTW, pollutants which may interfere with sludge disposal, and pollutants for which the Permittee's treatment facility has limited capacity. (Minn. R. 7049.0120, Subp. 13)

3. Control of Significant Industrial Users

3.1 The Permittee shall impose pretreatment requirements on SIUs which will ensure compliance with all applicable effluent limitations and other requirements set forth in this permit or any federal or state law or regulation limiting the release of pollutants from the POTW. These requirements shall be applied to SIUs by means of an individual control mechanism. (Minn. R. 7049.0600)

3.2 The Permittee shall not knowingly enter into an individual control mechanism with any user that would allow the user to contribute an amount or strength of wastewater that would cause violation of any limitation or requirement in the permit, or any applicable federal, state or local law or regulation. (Minn. R. 7049.0600 Subp. 3)

4. Monitoring of Significant Industrial Users

4.1 The Permittee shall obtain from SIUs specific information on the quality and quantity of the SIU's discharges to the Permittee's POTW. Except where specifically requested by the Permittee and approved by the MPCA, this information shall be obtained by means of representative monitoring conducted by the Permittee or by the SIU under requirements imposed by the Permittee in the SIU's individual control mechanism. Monitoring performed to comply with this requirement shall include all pollutants for which the SIU is significant and shall be done at a frequency commensurate with the significance of the SIU. (Minn. R. 7049.0710)

Chapter 6. Pretreatment

5. Reporting and Notification

5.1 If a SIU discharges to the POTW during a given calendar year, the Permittee shall submit a Pretreatment Annual Report for that calendar year, due by January 31 of the following year. The Pretreatment Annual Report shall be submitted on forms provided by the agency or shall provide equivalent information.

The Permittee shall submit the pre-treatment report to the following address:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194 (Minn. R. 7049.0720)

5.2 The Permittee shall notify the MPCA in writing of any:

a. SIU of the Permittee's POTW which has not been previously disclosed to the MPCA;

b. anticipated or actual changes in the volume or quality of discharge by an industrial user that could result in the industrial user becoming an SIU as defined in this chapter; or

c. anticipated or actual changes in the volume or quality of discharges by a SIU that would require changes to the SIU's required local limits.

This notification shall be submitted within 30 days of identifying the IU as a SIU. Where changes are proposed, they must be submitted prior to changes being made. (Minn. R. 7049.0700, Subp. 1)

5.3 Upon notifying the MPCA of a SIU or change in a SIU discharge as required above, the Permittee shall submit the following information on forms provided by the agency or in a comparable format:

a. the identity of the SIU and a description of the SIU's operation and process;

b. a characterization of the SIU's discharge;

c. the required local limits that will be imposed on the SIU;

d. a technical justification of the required local limits; and

e. a plan for monitoring the SIU which is consistent with monitoring requirements in this chapter. (Minn. R. 7049.0700)

5.4 In addition, the Permittee shall, upon request, submit the following to the MPCA for approval:

a. additional information on the SIU, its processes and discharge;

b. a copy of the individual control mechanism used to control the SIU;

c. the Permittee's legal authority to be used for regulating the SIU; and

d. the Permittee's procedures for enforcing the requirements imposed on the SIU. (Minn. R. 7049.0700, Subp. 3)

5.5 The permittee shall notify MPCA of any of its industrial users that may be subject to national categorical pretreatment standards.

Chapter 6. Pretreatment

. Reporting and Notification

5.6 This permit may be modified in accordance with Minnesota Rules, ch. 7001 to require development of a pretreatment program approvable under the Federal General Pretreatment Regulation (40 CFR 403).

Chapter 7. Total Facility Requirements

. General Requirements

General Requirements

1.1 Incorporation by Reference. The following applicable federal and state laws are incorporated by reference in this permit, are applicable to the Permittee, and are enforceable parts of this permit: 40 CFR pts. 122.41, 122.42, 136, 403 and 503; Minn. R. pts. 7001, 7041, 7045, 7050, 7052, 7053, 7060, and 7080; and Minn. Stat. Sec. 115 and 116.

1.2 Permittee Responsibility. The Permittee shall perform the actions or conduct the activity authorized by the permit in compliance with the conditions of the permit and, if required, in accordance with the plans and specifications approved by the Agency. (Minn. R. 7001.0150, subp. 3, item E)

1.3 Toxic Discharges Prohibited. Whether or not this permit includes effluent limitations for toxic pollutants, the Permittee shall not discharge a toxic pollutant except according to Code of Federal Regulations, Title 40, sections 400 to 460 and Minnesota Rules 7050, 7052, 7053 and any other applicable MPCA rules. (Minn. R. 7001.1090, subp.1, item A)

1.4 Nuisance Conditions Prohibited. The Permittee's discharge shall not cause any nuisance conditions including, but not limited to: floating solids, scum and visible oil film, acutely toxic conditions to aquatic life, or other adverse impact on the receiving water. (Minn. R. 7050.0210 subp. 2)

1.5 Property Rights. This permit does not convey a property right or an exclusive privilege. (Minn. R. 7001.0150, subp. 3, item C)

1.6 Liability Exemption. In issuing this permit, the state and the MPCA assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under this permit. To the extent the state and the MPCA may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act. (Minn. R. 7001.0150, subp. 3, item O)

1.7 The MPCA's issuance of this permit does not obligate the MPCA to enforce local laws, rules, or plans beyond what is authorized by Minnesota Statutes. (Minn. R. 7001.0150, subp.3, item D)

1.8 Liabilities. The MPCA's issuance of this permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. (Minn. R. 7001.0150, subp.3, item A)

1.9 The issuance of this permit does not prevent the future adoption by the MPCA of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. (Minn. R. 7001.0150, subp.3, item B)

1.10 Severability. The provisions of this permit are severable and, if any provisions of this permit or the application of any provision of this permit to any circumstance are held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

1.11 Compliance with Other Rules and Statutes. The Permittee shall comply with all applicable air quality, solid waste, and hazardous waste statutes and rules in the operation and maintenance of the facility.

Chapter 7. Total Facility Requirements

7. General Requirements

7.12 Inspection and Entry. When authorized by Minn. Stat. Sec. 115.04; 115B.17, subd. 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. (Minn. R. 7001.0150, subp.3, item I)

7.13 Control Users. The Permittee shall regulate the users of its wastewater treatment facility so as to prevent the introduction of pollutants or materials that may result in the inhibition or disruption of the conveyance system, treatment facility or processes, or disposal system that would contribute to the violation of the conditions of this permit or any federal, state or local law or regulation.

Sampling

7.14 Representative Sampling. Samples and measurements required by this permit shall be conducted as specified in this permit and shall be representative of the discharge or monitored activity. (40 CFR 122.41 (j)(1))

7.15 Additional Sampling. If the Permittee monitors more frequently than required, the results and the frequency of monitoring shall be reported on the Discharge Monitoring Report (DMR) or another MPCA-approved form for that reporting period. (Minn. R. 7001.1090, subp. 1, item E)

7.16 Certified Laboratory. A laboratory certified by the Minnesota Department of Health shall conduct analyses required by this permit. Analyses of dissolved oxygen, pH, temperature, specific conductance, and total residual oxidants (chlorine, bromine) do not need to be completed by a certified laboratory but shall comply with manufacturers specifications for equipment calibration and use. (Minn. Stat. Sec. 144.97 through 144.98 and Minn. R. 4740.2010 and 4740.2050 through 4740.2120) (Minn. R. 4740.2010 and 4740.2050 through 2120)

7.17 Sample Preservation and Procedure. Sample preservation and test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and Minn. R. 7041.3200.

7.18 Equipment Calibration: Flow meters, pumps, flumes, lift stations or other flow monitoring equipment used for purposes of determining compliance with permit shall be checked and/or calibrated for accuracy at least twice annually. (Minn. R. 7001.0150, subp. 2, items B and C)

7.19 Maintain Records. The Permittee shall keep the records required by this permit for at least three years, including any calculations, original recordings from automatic monitoring instruments, and laboratory sheets. The Permittee shall extend these record retention periods upon request of the MPCA. The Permittee shall maintain records for each sample and measurement. The records shall include the following information (Minn. R. 7001.0150, subp. 2, item C):

a. The exact place, date, and time of the sample or measurement;

b. The date of analysis;

c. The name of the person who performed the sample collection, measurement, analysis, or calculation; and

d. The analytical techniques, procedures and methods used; and

e. The results of the analysis.

Chapter 7. Total Facility Requirements

General Requirements

1.20 Completing Reports. The Permittee shall submit the results of the required sampling and monitoring activities on the forms provided, specified, or approved by the MPCA. The information shall be recorded in the specified areas on those forms and in the units specified. (Minn. R. 7001.1090, subp. 1, item D; Minn. R. 7001.0150, subp. 2, item B)

Required forms may include:

DMR Supplemental Form
Individual values for each sample and measurement must be recorded on the DMR Supplemental Form which, if required, will be provided by the MPCA. DMR Supplemental Forms shall be submitted with the appropriate DMRs. You may design and use your own supplemental form; however it must be approved by the MPCA. Note: Required summary information MUST also be recorded on the DMR. Summary information that is submitted ONLY on the DMR Supplemental Form does not comply with the reporting requirements.

1.21 Submitting Reports. DMRs and Supplementals shall be submitted to:

MPCA
Attn: Discharge Monitoring Reports
520 Lafayette Road North
St. Paul, Minnesota 55155-4194.

DMRs, DMR supplemental forms and related attachments may be electronically submitted via the MPCA Online Services Portal after authorization is approved. When electronically submitted, the paper DMR submittal requirement is waived.

DMRs and DMR Supplemental Forms shall be postmarked or electronically submitted by the 21st day of the month following the sampling period or as otherwise specified in this permit. Electronic DMR submittal must be complete on or before 11:59 PM of the 21st day of the month following the sampling period or as otherwise specified in this permit. A DMR shall be submitted for each required station even if no discharge occurred during the reporting period. (Minn. R. 7001.0150, subps. 2.B and 3.H)

Other reports required by this permit shall be postmarked by the date specified in the permit to:

MPCA
Attn: WQ Submittals Center
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

1.22 Incomplete or Incorrect Reports. The Permittee shall immediately submit an amended report or DMR to the MPCA upon discovery by the Permittee or notification by the MPCA that it has submitted an incomplete or incorrect report or DMR. The amended report or DMR shall contain the missing or corrected data along with a cover letter explaining the circumstances of the incomplete or incorrect report. (Minn. R. 7001.0150 subp. 3, item G)

1.23 Required Signatures. All DMRs, forms, reports, and other documents submitted to the MPCA shall be signed by the Permittee or the duly authorized representative of the Permittee. Minn. R. 7001.0150, subp. 2, item D. The person or persons that sign the DMRs, forms, reports or other documents must certify that he or she understands and complies with the certification requirements of Minn. R. 7001.0070 and 7001.0540, including the penalties for submitting false information. Technical documents, such as design drawings and specifications and engineering studies required to be submitted as part of a permit application or by permit conditions, must be certified by a registered professional engineer. (Minn. R. 7001.0540)

hapter 7. Total Facility Requirements

. General Requirements

1.24 Detection Level. The Permittee shall report monitoring results below the reporting limit (RL) of a particular instrument as "<" the value of the RL. For example, if an instrument has a RL of 0.1 mg/L and a parameter is not detected at a value of 0.1 mg/L or greater, the concentration shall be reported as "<0.1 mg/L." "Non-detected," "undetected," "below detection limit," and "zero" are unacceptable reporting results, and are permit reporting violations. (Minn. R. 7001.0150, subp. 2, item B)

Where sample values are less than the level of detection and the permit requires reporting of an average, the Permittee shall calculate the average as follows:

a. If one or more values are greater than the level of detection, substitute zero for all nondetectable values to use in the average calculation.

b. If all values are below the level of detection, report the averages as "<" the corresponding level of detection.

c. Where one or more sample values are less than the level of detection, and the permit requires reporting of a mass, usually expressed as kg/day, the Permittee shall substitute zero for all nondetectable values. (Minn. R. 7001.0150, subp. 2, item B)

1.25 Records. The Permittee shall, when requested by the Agency, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. (Minn. R. 7001.0150, subp. 3, item H)

1.26 Confidential Information. Except for data determined to be confidential according to Minn. Stat. Sec. 116.075, subd. 2, all reports required by this permit shall be available for public inspection. Effluent data shall not be considered confidential. To request the Agency maintain data as confidential, the Permittee must follow Minn. R. 7000.1300.

Noncompliance and Enforcement

1.27 Subject to Enforcement Action and Penalties. Noncompliance with a term or condition of this permit subjects the Permittee to penalties provided by federal and state law set forth in section 309 of the Clean Water Act; United States Code, title 33, section 1319, as amended; and in Minn. Stat. Sec. 115.071 and 116.072, including monetary penalties, imprisonment, or both. (Minn. R. 7001.1090, subp. 1, item B)

1.28 Criminal Activity. The Permittee may not knowingly make a false statement, representation, or certification in a record or other document submitted to the Agency. A person who falsifies a report or document submitted to the Agency, or tampers with, or knowingly renders inaccurate a monitoring device or method required to be maintained under this permit is subject to criminal and civil penalties provided by federal and state law. (Minn. R. 7001.0150, subp.3, item G., 7001.1090, subps. 1, items G and H and Minn. Stat. Sec. 609.671)

1.29 Noncompliance Defense. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (40 CFR 122.41(c))

Chapter 7. Total Facility Requirements

1. General Requirements

1.30 Effluent Violations. If sampling by the Permittee indicates a violation of any discharge limitation specified in this permit, the Permittee shall immediately make every effort to verify the violation by collecting additional samples, if appropriate, investigate the cause of the violation, and take action to prevent future violations. If the permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall within 24 hours of the discovery of the noncompliance, orally notify the commissioner and submit a written description of the noncompliance within 5 days of the discovery. The written description shall include items a. through e., as listed below. If the Permittee discovers other non-compliance that does not explicitly endanger human health, public drinking water supplies, or the environment, the non-compliance shall be reported during the next reporting period to the MPCA with its Discharge Monitoring Report (DMR). If no DMR is required within 30 days, the Permittee shall submit a written report within 30 days of the discovery of the noncompliance. This description shall include the following information:

a. a description of the event including volume, duration, monitoring results and receiving waters;

b. the cause of the event;

c. the steps taken to reduce, eliminate and prevent reoccurrence of the event;

d. the exact dates and times of the event; and

e. steps taken to reduce any adverse impact resulting from the event. (Minn. R. 7001.0150, subp. 3k)

1.31 Unauthorized Releases of Wastewater Prohibited. Except for conditions specifically described in Minn. R. 7001.1090, subp. 1, items J and K, all unauthorized bypasses, overflows, discharges, spills, or other releases of wastewater or materials to the environment, whether intentional or not, are prohibited. However, the MPCA will consider the Permittee's compliance with permit requirements, frequency of release, quantity, type, location, and other relevant factors when determining appropriate action. (40 CFR 122.41 and Minn. Stat. Sec 115.061)

hapter 7. Total Facility Requirements

l. General Requirements

1.32 Discovery of a release. Upon discovery of a release, the Permittee shall:

a. Take all reasonable steps to immediately end the release.

b. Notify the Minnesota Department of Public Safety Duty Officer at 1(800)422-0798 or (651)649-5451 (metro area) immediately upon discovery of the release. You may contact the MPCA during business hours at 1(800)657-3864 or (651)296-6300 (metro area).

c. Recover as rapidly and as thoroughly as possible all substances and materials released or immediately take other action as may be reasonably possible to minimize or abate pollution to waters of the state or potential impacts to human health caused thereby. If the released materials or substances cannot be immediately or completely recovered, the Permittee shall contact the MPCA. If directed by the MPCA, the Permittee shall consult with other local, state or federal agencies (such as the Minnesota Department of Natural Resources and/or the Wetland Conservation Act authority) for implementation of additional clean-up or remediation activities in wetland or other sensitive areas.

d. Collect representative samples of the release. The Permittee shall sample the release for parameters of concern immediately following discovery of the release. The Permittee may contact the MPCA during business hours to discuss the sampling parameters and protocol. In addition, Fecal Coliform Bacteria samples shall be collected where it is determined by the Permittee that the release contains or may contain sewage. If the release cannot be immediately stopped, the Permittee shall consult with MPCA regarding additional sampling requirements. Samples shall be collected at least, but not limited to, two times per week for as long as the release continues.

e. Submit the sampling results as directed by the MPCA. At a minimum, the results shall be submitted to the MPCA with the next DMR.

1.33 Upset Defense. In the event of temporary noncompliance by the Permittee with an applicable effluent limitation resulting from an upset at the Permittee's facility due to factors beyond the control of the Permittee, the Permittee has an affirmative defense to an enforcement action brought by the Agency as a result of the noncompliance if the Permittee demonstrates by a preponderance of competent evidence:

a. The specific cause of the upset;

b. That the upset was unintentional;

c. That the upset resulted from factors beyond the reasonable control of the Permittee and did not result from operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or increases in production which are beyond the design capability of the treatment facilities;

d. That at the time of the upset the facility was being properly operated;

e. That the Permittee properly notified the Commissioner of the upset in accordance with Minn. R. 7001.1090, subp. 1, item I; and

f. That the Permittee implemented the remedial measures required by Minn. R. 7001.0150, subp. 3, item J.

Operation and Maintenance

Chapter 7. Total Facility Requirements

1. General Requirements

1.34 The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control, and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible Minn. R. 7001.0150. subp. 3, item F.

1.35 In the event of a reduction or loss of effective treatment of wastewater at the facility, the Permittee shall control production or curtail its discharges to the extent necessary to maintain compliance with the terms and conditions of this permit. The Permittee shall continue this control or curtailment until the wastewater treatment facility has been restored or until an alternative method of treatment is provided. (Minn. R. 7001.1090, subp. 1, item C)

1.36 Solids Management. The Permittee shall properly store, transport, and dispose of biosolids, septage, sediments, residual solids, filter backwash, screenings, oil, grease, and other substances so that pollutants do not enter surface waters or ground waters of the state. Solids should be disposed of in accordance with local, state and federal requirements. (40 CFR 503 and Minn. R. 7041 and applicable federal and state solid waste rules)

1.37 Scheduled Maintenance. The Permittee shall schedule maintenance of the treatment works during non-critical water quality periods to prevent degradation of water quality, except where emergency maintenance is required to prevent a condition that would be detrimental to water quality or human health. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

1.38 Control Tests. In-plant control tests shall be conducted at a frequency adequate to ensure compliance with the conditions of this permit. (Minn. R. 7001.0150. subp. 3, item F and Minn. R. 7001.0150. subp. 2, item B)

Changes to the Facility or Permit

1.39 Permit Modifications. Except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, no person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted, nor shall a person commence an activity for which a permit is required by statute or rule until the agency has issued a written permit for the facility or activity. (Minn. R. 7001.0030)

Permittees that propose to make a change to the facility or discharge that requires a permit modification must follow Minn. R. 7001.0190. If the Permittee cannot determine whether a permit modification is needed, the Permittee must contact the MPCA prior to any action. It is recommended that the application for permit modification be submitted to the MPCA at least 180 days prior to the planned change.

1.40 No person required by statute or rule to obtain a permit may construct, install, modify, or operate the facility to be permitted except as provided under Minnesota Statutes, section 115.07, subdivisions 1 and 3, nor shall a person commence an activity for which a permit is required by statute or rule until the agency has issued a written permit for the facility or activity.

1.41 Plans, specifications and MPCA approval are not necessary when maintenance dictates the need for installation of new equipment, provided the equipment is the same design size and has the same design intent. For instance, a broken pipe, lift station pump, aerator, or blower can be replaced with the same design-sized equipment without MPCA approval.

If the proposed construction is not expressly authorized by this permit, it may require a permit modification. If the construction project requires an Environmental Assessment Worksheet under Minn. R. 4410, no construction shall begin until a negative declaration is issued and all approvals are received or implemented.

hapter 7. Total Facility Requirements

1. General Requirements

1.42 Report Changes. The Permittee shall give advance notice as soon as possible to the MPCA of any substantial changes in operational procedures, activities that may alter the nature or frequency of the discharge, and/or material factors that may affect compliance with the conditions of this permit. (Minn. R. 7001.0150, subp. 3, item M)

1.43 Chemical Additives. The Permittee shall receive prior written approval from the MPCA before increasing the use of a chemical additive authorized by this permit, or using a chemical additive not authorized by this permit, in quantities or concentrations that have the potential to change the characteristics, nature and/or quality of the discharge.

The Permittee shall request approval for an increased or new use of a chemical additive at least 60 days, or as soon as possible, before the proposed increased or new use.

This written request shall include at least the following information for the proposed additive:

a. The process for which the additive will be used;
b. Material Safety Data Sheet (MSDS) which shall include aquatic toxicity, human health, and environmental fate information for the proposed additive. The aquatic toxicity information shall include at minimum the results of: a) a 48-hour LC50 or EC50 acute study for a North American freshwater planktonic crustacean (either Ceriodaphnia or Daphnia sp.) and b) a 96-hour LC50 acute study for rainbow trout, bluegill or fathead minnow or another North American freshwater aquatic species other than a planktonic crustacean;
c. A complete product use and instruction label;
d. The commercial and chemical names and Chemical Abstract Survey (CAS) number for all ingredients in the additive (If the MSDS does not include information on chemical composition, including percentages for each ingredient totaling to 100%, the Permittee shall contact the supplier to have this information provided); and
e. The proposed method of application, application frequency, concentration, and daily average and maximum rates of use. (Minn. R. 7001.0170)

1.44 Upon review of the information submitted regarding the proposed chemical additive, the MPCA may require additional information be submitted for consideration. This permit may be modified to restrict the use or discharge of a chemical additive and include additional influent and effluent monitoring requirements.

Approval for the use of an additive shall not justify the exceedance of any effluent limitation nor shall it be used as a defense against pollutant levels in the discharge causing or contributing to the violation of a water quality standard.

1.45 MPCA Initiated Permit Modification, Suspension, or Revocation. The MPCA may modify or revoke and reissue this permit pursuant to Minn. R. 7001.0170. The MPCA may revoke without reissuance this permit pursuant to Minn. R. 7001.0180.

1.46 TMDL Impacts. Facilities that discharge to an impaired surface water, watershed or drainage basin may be required to comply with additional permits or permit requirements, including additional restriction or relaxation of limits and monitoring as authorized by the CWA 303(d)(4)(A) and 40 CFR 122.44.l.2.i., necessary to ensure consistency with the assumptions and requirements of any applicable US EPA approved wasteload allocations resulting from Total Maximum Daily Load (TMDL) studies.

1.47 Permit Transfer. The permit is not transferable to any person without the express written approval of the Agency after compliance with the requirements of Minn. R. 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. (Minn. R., 7001.0150, subp. 3, item N)

hapter 7. Total Facility Requirements

General Requirements

1.48 Facility Closure. The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval.

Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. (Minn. Stat. Sec. 116.07, subd. 4)

1.49 Permit Reissuance. If the Permittee desires to continue permit coverage beyond the date of permit expiration, the Permittee shall submit an application for reissuance at least 180 days before permit expiration. If the Permittee does not intend to continue the activities authorized by this permit after the expiration date of this permit, the Permittee shall notify the MPCA in writing at least 180 days before permit expiration.

If the Permittee has submitted a timely application for permit reissuance, the Permittee may continue to conduct the activities authorized by this permit, in compliance with the requirements of this permit, until the MPCA takes final action on the application, unless the MPCA determines any of the following (Minn. R. 7001.0040 and 7001.0160):

a. The Permittee is not in substantial compliance with the requirements of this permit, or with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this permit;

b. The MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the expiration date of the permit;

c. The Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies.

Submittals and Actions Checklist
Crosslake WWTF

This checklist is intended to assist you in tracking the reporting requirements of your permit. However, it is only an aid. PLEASE CONSULT YOUR PERMIT FOR THE EXACT REQUIREMENTS.

Please note: This checklist only details submittal requirements for the next five years. DMRs, Annual Reports, and many other submittals are required even after the expiration date of this permit, and continue to be due until the permit is either reissued or terminated.

ubmit DMRs to:
Attention: Discharge Monitoring Reports
Minnesota Pollution Control Agency
20 Lafayette Rd N
t. Paul, MN 55155

Submit other WQ reports to:
Attention: Submittals Center
Minnesota Pollution Control Agency
520 Lafayette Rd N
St. Paul, MN 55155

MPCA Staff Contacts:
For DMR-related questions:
Jennifer Satnik at (651)757-2692
For other questions:
Herschel Blasing at (218)316-3860

2012
- [ ] Submit DMR (due before Jul 22)
- [ ] Submit DMR (due before Aug 22)
- [ ] Submit DMR (due before Sep 22)
- [ ] Submit DMR (due before Oct 22)
- [ ] Submit DMR (due before Nov 22)
- [ ] Submit DMR (due before Dec 22)

013
- [ ] Submit DMR (due before Jan 22)
- [ ] Submit DMR (due before Feb 22)
- [ ] Submit DMR (due before Mar 22)
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2014
- [ ] Submit DMR (due before Jan 22)
- [ ] Submit DMR (due before Feb 22)
- [ ] Submit DMR (due before Mar 22)
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- [ ] Submit DMR (due before Aug 22)
- [ ] Submit DMR (due before Sep 22)

Permit Issued: May 23, 2012
Permit Expires: April 30, 2017

Submittals and Actions Checklist
Crosslake WWTF

Permit #: MN0064882

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2015

- [ ] Submit DMR (due before Oct 22)
- [ ] Submit DMR (due before Nov 22)
- [ ] Submit DMR (due before Dec 22)

2016

- [ ] Submit DMR (due before Jan 22)
- [ ] Submit DMR (due before Feb 22)
- [ ] Submit DMR (due before Mar 22)
- [ ] Submit DMR (due before Apr 22)
- [ ] Submit DMR (due before May 22)
- [ ] Submit DMR (due before Jun 22)
- [ ] Submit DMR (due before Jul 22)
- [ ] Submit DMR (due before Aug 22)
- [ ] Submit DMR (due before Sep 22)
- [ ] Submit DMR (due before Oct 22)
- [ ] Submit an application for permit reissuance (due before Nov 1) {Permit Req't. 7.1.49}
- [ ] Submit DMR (due before Nov 22)
- [ ] Submit DMR (due before Dec 22)

2017

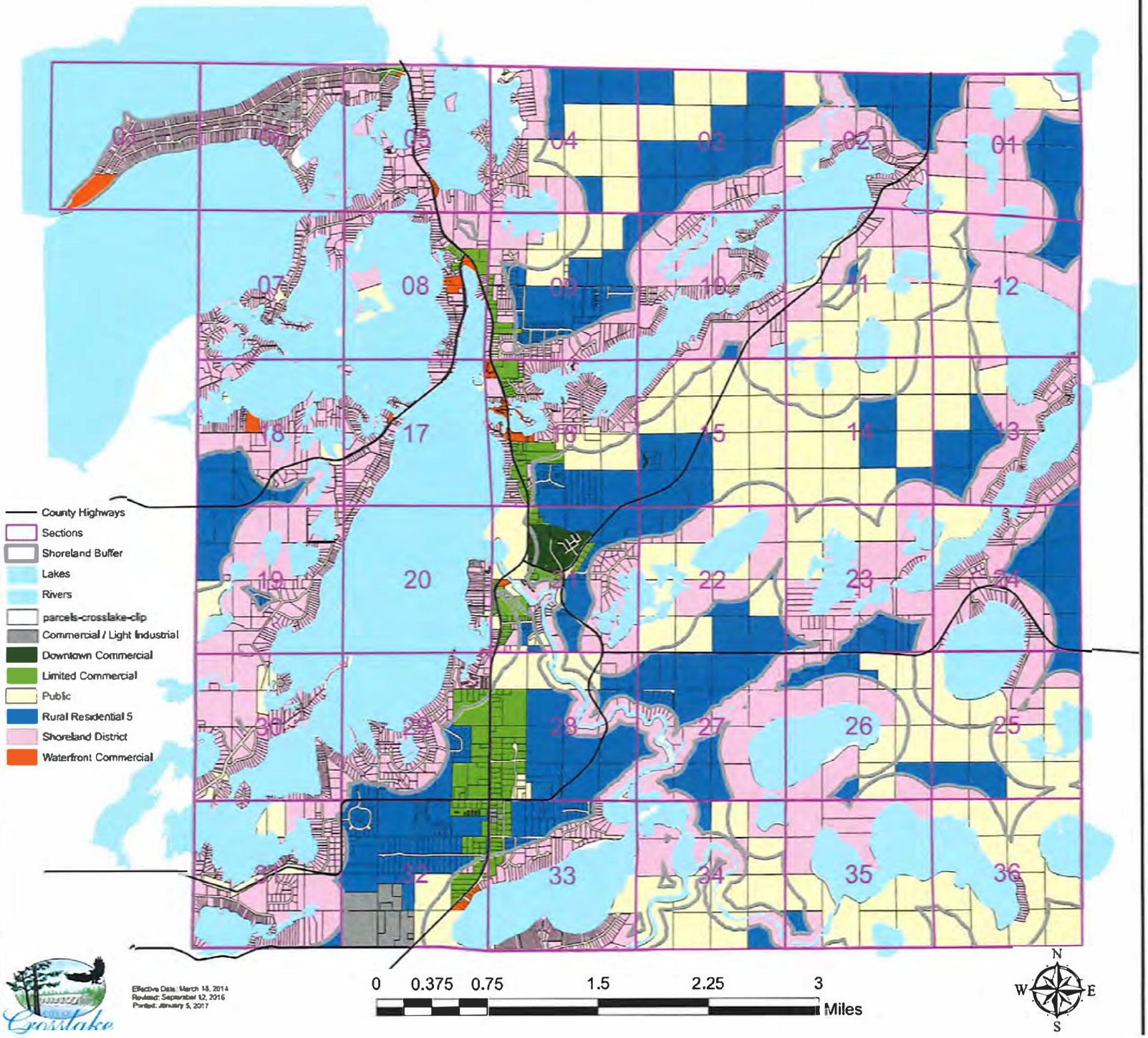
- [ ] Submit DMR (due before Jan 22)
- [ ] Submit DMR (due before Feb 22)
- [ ] Submit DMR (due before Mar 22)
- [ ] Submit DMR (due before Apr 22)

Other Submittals

- [ ] If, during any cropping year, biosolids were transferred, or not land applied, the Permittee shall submit a Biosolids Annual Report by December 31 following the end of the cropping year. The report shall state that biosolids were not land applied, how much was generated, and where they were transferred to. {Permit Req't. 5.9.2}

Appendix B: Crosslake Land Information Maps

CITY OF CROSSLAKE LAND USE DISTRICTS MAP



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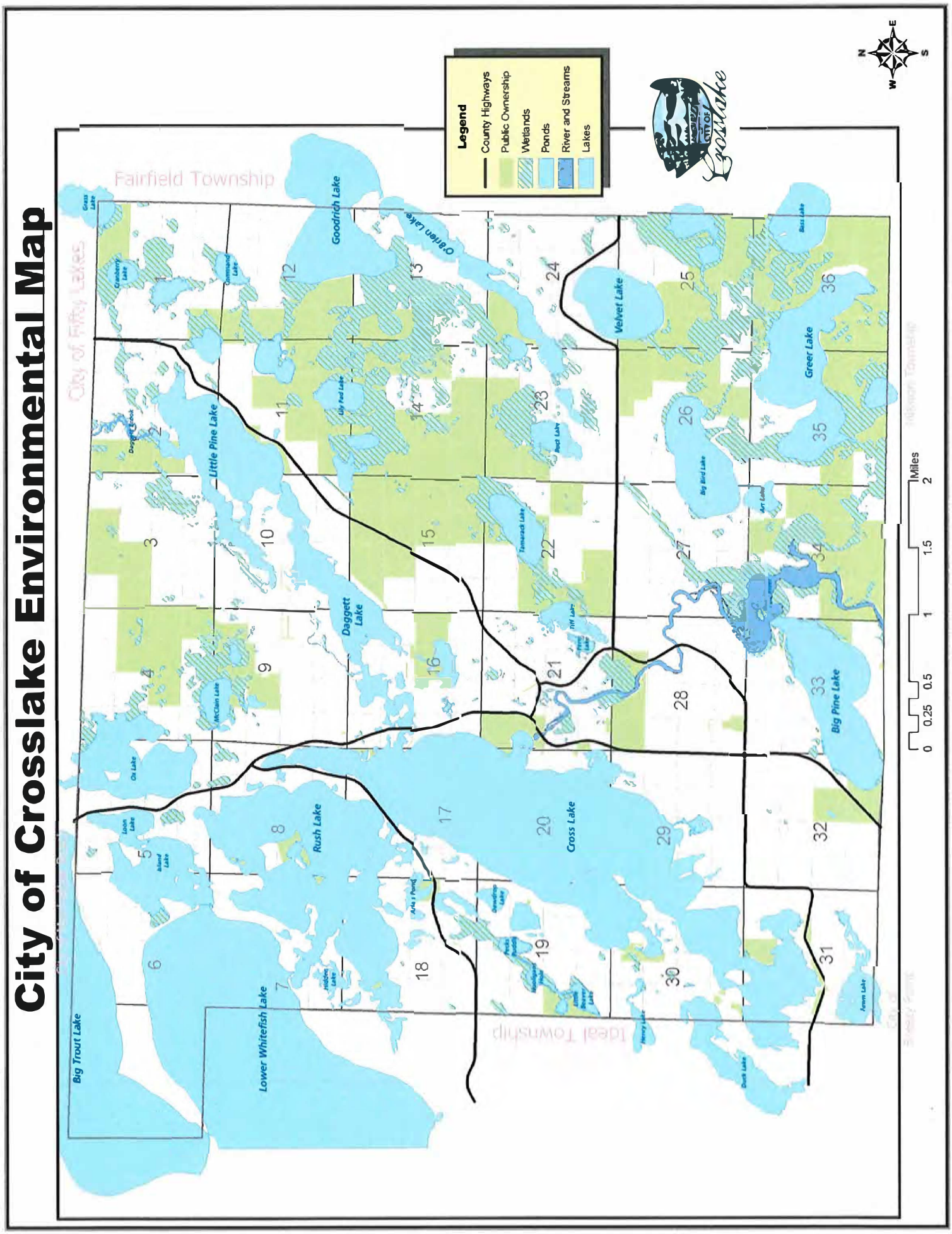
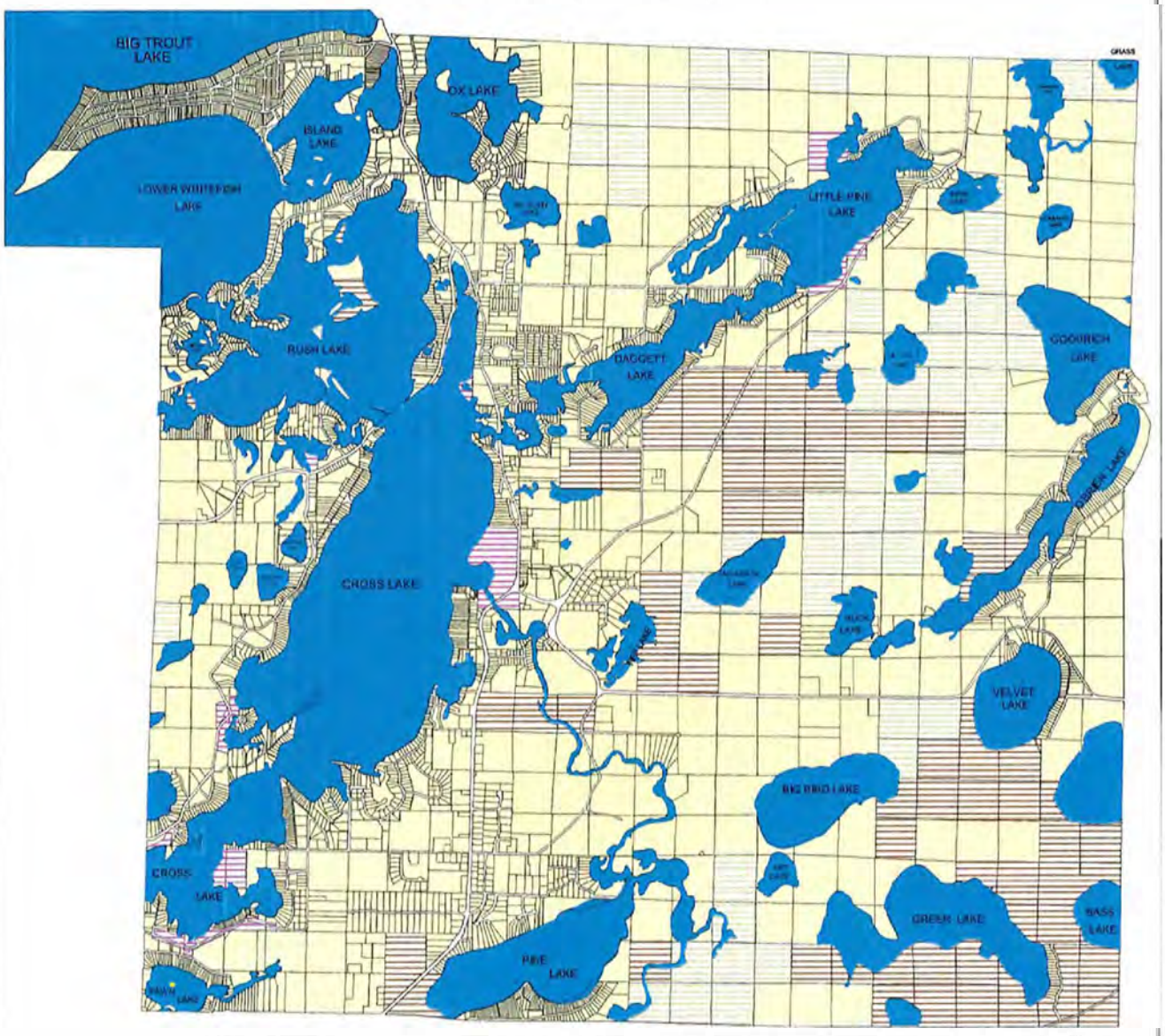

City of Crosslake Environmental Map
Legend
County Highways
Public Ownership
Wetlands
Ponds
River and Streams
Lakes
Fairfield Township
City of Fifty Lakes
Ideal Township
Goodrich Lake
O'Brien Lake
Little Pine Lake
Daggett Lake
Velvet Lake
Greer Lake
Big Pine Lake
Rush Lake
Cross Lake
Lower Whitefish Lake
Big Trout Lake
Miles
0 0.25 0.5 1 1.5 2

City of Crosslake
Public Land



Ownership

- **Crow Wing County**
- **State of Minnesota (DNR)**
- **United States of America (US Corp)**
- **Parcels**
- **Water**

N

Map Date: November 22, 2002

Appendix C: Expansion Cost Information

PRELIMINARY COST ESTIMATE

EASTERLY SYSTEM EXPANSION (DAGGETT LAKE SERVICE AREA)
CITY OF CROSSLAKE, MN
BMI PROJECT NO. B11.116905 DATE: 10/03/18

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	MOBILIZATION	1	LUMP SUM	$45,000.00	$45,000.00
2	CLEARING	1	ACRE	$2,000.00	$2,000.00
3	GRUBBING	1	ACRE	$2,000.00	$2,000.00
4	REMOVE BITUMINOUS PAVEMENT	500	SQ YD	$4.00	$2,000.00
5	TOPSOIL BORROW (CV)	2100	CU YD	$25.00	$52,500.00
6	AGGREGATE SURFACING, CLASS 5	54	TON	$10.00	$540.00
7	AGGREGATE BASE, CLASS 5 (CV)	3500	TON	$12.00	$42,000.00
8	MILL BITUMINOUS SURFACE (FULL DEPTH)	13450	SQ YD	$2.00	$26,900.00
9	TYPE SP 12.5 (2,B) WEARING COURSE	2000	TON	$65.00	$130,000.00
10	COARSE FILTER AGGREGATE	600	CU YD	$18.00	$10,800.00
11	12" CORRUGATED METAL PIPE CULVERT	480	LIN FT	$25.00	$12,000.00
12	CASTING ASSEMBLY (SANITARY SEWER)	20	EACH	$500.00	$10,000.00
13	SILT FENCE, TYPE PREASSEMBLED	2000	LIN FT	$3.00	$6,000.00
14	SEEDING	4	ACRE	$600.00	$2,400.00
15	SEED-MIXTURE 150	300	LBS	$1.25	$375.00
16	SEED-MIXTURE 270	600	LBS	$2.50	$1,500.00
17	MULCH MATERIAL, TYPE 1	8	TON	$300.00	$2,400.00
18	HYDRAULIC SOIL STABILIZER, TYPE 5	8400	LBS	$1.25	$10,500.00
19	EROSION CONTROL BLANKETS, CATEGORY 2	1000	SQ YD	$2.00	$2,000.00
20	COMMERCIAL FERTILIZER	800	LBS	$0.50	$400.00
21	8" PVC SEWER PIPE	4250	LIN FT	$35.00	$148,750.00
22	6" DUCTILE IRON PIPE SEWER	40	LIN FT	$50.00	$2,000.00
23	2" PVC FORCEMAIN PIPE	400	LIN FT	$15.00	$6,000.00
24	4" PVC FORCEMAIN PIPE	400	LIN FT	$15.00	$6,000.00
25	2" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	440	LIN FT	$35.00	$15,400.00
26	4" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	450	LIN FT	$75.00	$33,750.00
27	SANITARY SEWER MANHOLE, MNDOT DESIGN 4007C (48" DIAMETER)	240	LIN FT	$250.00	$60,000.00
28	4" PVC SERVICE PIPE	2240	LIN FT	$15.00	$33,600.00
29	8" X 4" PVC WYE	56	EACH	$450.00	$25,200.00
30	CLEANING AND TELEVISING SANITARY SEWERS	4250	LIN FT	$1.50	$6,375.00
31	DUCTILE IRON FITTINGS (FORCEMAIN)	1300	LBS	$10.00	$13,000.00
32	2" RIGID POLYSTYRENE INSULATION	2000	SQ YD	$20.00	$40,000.00
33	LIFT STATION A (2" Duplex Grinder with Controls)	1	LUMP SUM	$50,000.00	$50,000.00
34	LIFT STATION B (2" Duplex Grinder with Controls)	1	LUMP SUM	$30,000.00	$30,000.00
35	LIFT STATION C (4" Duplex Grinder with Controls)	1	LUMP SUM	$110,000.00	$110,000.00
36	TRAFFIC CONTROL	1	LUMP SUM	$5,000.00	$5,000.00
37	INFILTRATION SHIELDS	20	EACH	$250.00	$5,000.00
38	DEWATERING	1	LUMP SUM	$50,000.00	$50,000.00
39	SOIL COMPACTION TESTING	120	EACH	$25.00	$3,000.00

CONSTRUCTION SUBTOTAL AMOUNT:	$1,004,390.00
CONSTRUCTION CONTINGENCY (20%):	$200,910.00
TOTAL CONSTRUCTION AMOUNT:	1,205,300.00
ENGINEERING, LEGAL, FINANCIAL, ADMINISTRATIVE (20%):	$241,100.00
PROJECT TOTAL:	**1,446,400.00**

PRELIMINARY ENGINEER'S ESTIMATE

NORTH SYSTEM EXPANSION (CSAH 66/MOONLITE SERVICE AREA)

CROSSLAKE, MINNESOTA

OPTION 1: 10" GRAVITY SEWER (OPEN CUT)

				CITY		COUNTY	
ITEM NO.	ITEM	UNIT	UNIT PRICE	ESTIMATED QUANTITY	AMOUNT	ESTIMATED QUANTITY	AMOUNT
STREET:							
1	MOBILIZATION	LUMP SUM	$100,000.00	0.84	$84,000.00	0.16	$16,000.00
2	REMOVE BITUMINOUS PAVEMENT	SQ. YD.	$1.25	18000	$22,500.00		
3	SAWCUT BITUMINOUS PAVEMENT	LIN. FT.	$2.50	4300	$10,750.00		
4	REMOVE CONCRETE CURB & GUTTER	LIN. FT.	$2.50	4050	$10,125.00		
5	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	$5.00	115	$575.00		
6	AGGREGATE BASE (CV) CLASS 5	CU. YD.	$25.00	3020	$75,500.00		
7	BITUMINOUS PAVING	TON	$70.00	2100	$147,000.00		
8	BITUMINOUS PAVING (WEARING COURSE 2")	TON	$70.00			1582	$110,740.00
9	CONCRETE CURB & GUTTER DESIGN B624	LIN. FT.	$20.00	4050	$81,000.00		
10	6" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	$50.00	115	$5,750.00		
11	TRAFFIC CONTROL	LUMP SUM	$30,000.00	0.84	$25,200.00	0.16	$4,800.00
12	SILT FENCE	LIN. FT.	$1.50	4100	$6,150.00		
13	COMMON TOPSOIL BORROW	CU. YD.	$25.00	180	$4,500.00		
14	TURF ESTABLISHMENT	SQ. YD.	$1.50	1000	$1,500.00		
15	4" SOLID LINE YELLOW-EPOXY	LIN. FT.	$1.00			2000	$2,000.00
16	4" BROKEN LINE YELLOW-EPOXY	LIN. FT.	$0.60			610	$366.00
17	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN. FT.	$1.20			1000	$1,200.00
18	4" SOLID LINE WHITE-EPOXY	LIN. FT.	$2.00			4050	$8,100.00
19	8"SOLID LINE WHITE EPOXY	LIN. FT.	$3.50			120	$420.00
SEWER:							
20	CONNECT TO EXISTING SANITARY SEWER	EACH	$1,500.00	1	$1,500.00		
21	8" PVC PIPE SEWER (OPEN CUT)	LIN. FT.	$35.00	80	$2,800.00		
22	10" PVC PIPE SEWER (OPEN CUT)	LIN. FT.	$40.00	4140	$165,600.00		
23	10X4 PVC WYE	EACH	$700.00	32	$22,400.00		
24	CONSTRUCT DRAINAGE STRUCTURE DESIGN 4007	LIN. FT.	$250.00	200	$50,000.00		
25	4" PVC SANITARY SERVICE PIPE	LIN. FT.	$15.00	1480	$22,200.00		
26	CASTING ASSEMBLY	EACH	$500.00	13	$6,500.00		

SUBTOTAL CONSTRUCTION COST:	$ 745,550.00	$ 143,626.00
CONTINGENCIES:	$ 149,150.00	$ 28,774.00
TOTAL CONSTRUCTION COST:	$ 894,700.00	$ 172,400.00
ENGINEERING, ADMINISTRATIONAND LEGAL:	$ 178,900.00	$ 34,500.00
ESTIMATED TOTAL PROJECT COST:	**$ 1,073,600.00**	**$ 206,900.00**

OVERALL PROJECT TOTAL COST: **$ 1,280,500.00**

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PRELIMINARY COST ESTIMATE

NORTHEASTERLY SYSTEM EXPANSOIN (COMMUNITY CENTER SERVICE AREA)
CITY OF CROSSLAKE, MN
BMI PROJECT NO. B11.116905

DATE: 10/05/18

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	MOBILIZATION	1	LUMP SUM	$130,000.00	$130,000.00
2	CLEARING	0.50	ACRE	$2,000.00	$1,000.00
3	GRUBBING	0.50	ACRE	$2,000.00	$1,000.00
4	REMOVE BITUMINOUS PAVEMENT	40000	SQ YD	$2.00	$80,000.00
5	TOPSOIL BORROW (CV)	7000	CU YD	$25.00	$175,000.00
6	AGGREGATE SURFACING, CLASS 5	200	TON	$10.00	$2,000.00
7	AGGREGATE BASE, CLASS 5 (CV)	6700	CU YD	$25.00	$167,500.00
8	TYPE SP 12.5 (2,B) WEARING COURSE	6900	TON	$65.00	$448,500.00
9	12" CORRUGATED METAL PIPE CULVERT	1600	LIN FT	$25.00	$40,000.00
10	CASTING ASSEMBLY (SANITARY SEWER)	60	EACH	$500.00	$30,000.00
11	SILT FENCE, TYPE PREASSEMBLED	8000	LIN FT	$3.00	$24,000.00
12	SEEDING	17	ACRE	$600.00	$10,200.00
13	SEED-MIXTURE 25-151	3000	LBS	$1.25	$3,750.00
14	HYDRAULIC SOIL STABILIZER, TYPE 5	60000	LBS	$1.25	$75,000.00
15	EROSION CONTROL BLANKETS, CATEGORY 2	4000	SQ YD	$2.00	$8,000.00
16	COMMERCIAL FERTILIZER	6000	LBS	$0.50	$3,000.00
17	8" PVC SEWER PIPE	16000	LIN FT	$35.00	$560,000.00
18	10" PVC SEWER PIPE	2250	LIN FT	$40.00	$90,000.00
19	2" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	5260	LIN FT	$15.00	$78,900.00
20	4" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	6900	LIN FT	$30.00	$207,000.00
21	SANITARY SEWER MANHOLE, MNDOT DESIGN 4007C (48" DIAMETER)	660	LIN FT	$250.00	$165,000.00
22	4" PVC SERVICE PIPE	4800	LIN FT	$15.00	$72,000.00
23	8" X 4" PVC WYE	120	EACH	$450.00	$54,000.00
24	10" X 4" PVC WYE	20	EACH	$450.00	$9,000.00
25	CLEANING AND TELEVISING SANITARY SEWERS	18250	LIN FT	$1.50	$27,375.00
26	DUCTILE IRON FITTINGS (FORCEMAIN)	600	LBS	$10.00	$6,000.00
27	2" RIGID POLYSTYRENE INSULATION	2000	SQ YD	$20.00	$40,000.00
28	LIFT STATION (4" Duplex Grinder with Controls)	2	LUMP SUM	$150,000.00	$300,000.00
29	TRAFFIC CONTROL	1	LUMP SUM	$20,000.00	$20,000.00
30	INFILTRATION SHIELDS	60	EACH	$250.00	$15,000.00
31	DEWATERING	1	LUMP SUM	$60,000.00	$60,000.00
32	SOIL COMPACTION TESTING	130	EACH	$25.00	$3,250.00

CONSTRUCTION SUBTOTAL AMOUNT:	$2,906,475.00
CONSTRUCTION CONTINGENCY (20%):	$581,325.00
TOTAL CONSTRUCTION AMOUNT:	3,487,800.00
ENGINEERING, LEGAL, FINANCIAL, ADMINISTRATIVE (20%):	$697,600.00
PROJECT TOTAL:	**4,185,400.00**

PRELIMINARY COST ESTIMATE

SOUTH SYSTEM EXPANSION (EAST SHORE SERVICE AREA)
CITY OF CROSSLAKE, MN
BMI PROJECT NO. B11.116905

DATE: 10/05/18

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	MOBILIZATION	1	LUMP SUM	$175,000.00	$175,000.00
2	CLEARING	0.50	ACRE	$2,000.00	$1,000.00
3	GRUBBING	0.50	ACRE	$2,000.00	$1,000.00
4	REMOVE BITUMINOUS PAVEMENT	45000	SQ YD	$2.00	$90,000.00
5	TOPSOIL BORROW (CV)	7500	CU YD	$25.00	$187,500.00
6	AGGREGATE SURFACING, CLASS 5	250	TON	$10.00	$2,500.00
7	AGGREGATE BASE, CLASS 5 (CV)	7500	CU YD	$25.00	$187,500.00
8	TYPE SP 12.5 (2,B) WEARING COURSE	7800	TON	$65.00	$507,000.00
9	12" CORRUGATED METAL PIPE CULVERT	2000	LIN FT	$25.00	$50,000.00
10	CASTING ASSEMBLY (SANITARY SEWER)	62	EACH	$500.00	$31,000.00
11	SILT FENCE, TYPE PREASSEMBLED	10000	LIN FT	$3.00	$30,000.00
12	SEEDING	20	ACRE	$600.00	$12,000.00
13	SEED-MIXTURE 25-151	3600	LBS	$1.25	$4,500.00
14	HYDRAULIC SOIL STABILIZER, TYPE 5	70000	LBS	$1.25	$87,500.00
15	EROSION CONTROL BLANKETS, CATEGORY 2	5000	SQ YD	$2.00	$10,000.00
16	COMMERCIAL FERTILIZER	7000	LBS	$0.50	$3,500.00
17	8" PVC SEWER PIPE	9655	LIN FT	$35.00	$337,925.00
18	10" PVC SEWER PIPE	9677	LIN FT	$40.00	$387,080.00
19	4" PVC FORCEMAIN PIPE	900	LIN FT	$15.00	$13,500.00
20	2" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	6100	LIN FT	$15.00	$91,500.00
21	4" HDPE FORCEMAIN PIPE (DIRECTIONAL BORE)	2730	LIN FT	$30.00	$81,900.00
22	SANITARY SEWER MANHOLE, MNDOT DESIGN 4007C (48" DIAMETER)	740	LIN FT	$250.00	$185,000.00
23	4" PVC SERVICE PIPE	8500	LIN FT	$15.00	$127,500.00
24	8" X 4" PVC WYE	125	EACH	$450.00	$56,250.00
25	10" X 4" PVC WYE	94	EACH	$450.00	$42,300.00
26	CLEANING AND TELEVISING SANITARY SEWERS	19332	LIN FT	$1.50	$28,998.00
27	DUCTILE IRON FITTINGS (FORCEMAIN)	1000	LBS	$10.00	$10,000.00
28	2" RIGID POLYSTYRENE INSULATION	2500	SQ YD	$20.00	$50,000.00
29	LIFT STATION (4" Duplex Grinder with Controls)	3	LUMP SUM	$150,000.00	$450,000.00
30	TRAFFIC CONTROL	1	LUMP SUM	$25,000.00	$25,000.00
31	INFILTRATION SHIELDS	62	EACH	$250.00	$15,500.00
32	DEWATERING	1	LUMP SUM	$100,000.00	$100,000.00
33	SOIL COMPACTION TESTING	150	EACH	$25.00	$3,750.00

CONSTRUCTION SUBTOTAL AMOUNT:	$3,386,203.00
CONSTRUCTION CONTINGENCY (20%):	$677,197.00
TOTAL CONSTRUCTION AMOUNT:	4,063,400.00
ENGINEERING, LEGAL, FINANCIAL, ADMINISTRATIVE (20%):	$812,700.00
PROJECT TOTAL:	**4,876,100.00**

PRELIMINARY COST ESTIMATE

SOUTHEASTERLY SYSTEM EXPANSION (WILDWOOD SERVICE AREA)
CITY OF CROSSLAKE, MN
BMI PROJECT NO. B11.116905

DATE: 10/03/18

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	MOBILIZATION	1	LUMP SUM	$75,000.00	$75,000.00
2	CLEARING	1.2	ACRE	$2,000.00	$2,400.00
3	CLEARING	34	TREE	$300.00	$10,200.00
4	GRUBBING	1.2	ACRE	$2,000.00	$2,400.00
5	GRUBBING	34	TREE	$300.00	$10,200.00
6	REMOVE CULVERT PIPE	140	LIN FT	$10.00	$1,400.00
7	REMOVE BITUMINOUS PAVEMENT	29580	SQ YD	$2.00	$59,160.00
8	REMOVE SIGN TYPE C	8	EACH	$25.00	$200.00
9	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	1445	LIN FT	$3.00	$4,335.00
10	SALVAGE SIGN	8	EACH	$25.00	$200.00
11	DEWATERING	1	LUMP SUM	$100,000.00	$100,000.00
12	COMMON LABORERS	50	HOUR	$85.00	$4,250.00
13	MOTOR GRADER	50	HOUR	$170.00	$8,500.00
14	STREET SWEEPER (WITH PICKUP BROOM)	26	HOUR	$100.00	$2,600.00
15	AGGREGATE BASE CLASS 5	255	TON	$12.00	$3,060.00
16	AGGREGATE BASE (CV) CLASS 5 (P)	2885	CU YD	$20.00	$57,700.00
17	TYPE SP 9.5 WEARING COURSE MIXTURE (2,C)	4200	TON	$65.00	$273,000.00
18	CS PIPE CULVERT	140	LIN FT	$25.00	$3,500.00
19	12" RC PIPE APRON	4	EACH	$400.00	$1,600.00
20	CONNECT TO EXISTING SANITARY SEWER	3	EACH	$1,000.00	$3,000.00
21	CONNECT TO EXISTING MANHOLES (SAN)	1	EACH	$2,400.00	$2,400.00
22	CLEAN AND VIDEO TAPE PIPE SEWER - MAINLINE	8420	LIN FT	$1.25	$10,525.00
23	CLEAN AND VIDEO TAPE PIPE SEWER - SERVICE	2135	LIN FT	$1.25	$2,668.75
24	MAILBOX SUPPORT	31	EACH	$125.00	$3,875.00
25	TEMPORARY POSTAL SERVICE	31	EACH	$100.00	$3,100.00
26	TRAFFIC CONTROL	1	LUMP SUM	$7,500.00	$7,500.00
27	INSTALL SIGN	8	EACH	$80.00	$640.00
28	FURNISH TYPE C SIGN	8	EACH	$150.00	$1,200.00
29	SILT FENCE, TYPE MS	2050	LIN FT	$3.00	$6,150.00
30	STABILIZED CONSTRUCTION EXIT	2	EACH	$600.00	$1,200.00
31	EROSION CONTROL SUPERVISOR	1	LUMP SUM	$1,500.00	$1,500.00
32	CULVERT END CONTROLS	4	EACH	$250.00	$1,000.00
33	FERTILIZER TYPE 1	2460	POUND	$0.50	$1,230.00
34	COMMON TOPSOIL BORROW	3920	CU YD	$25.00	$98,000.00
35	SEEDING	16.4	ACRE	$600.00	$9,840.00
36	SEED MIXTURE 22-111	328	POUND	$2.50	$820.00
37	SEED MIXTURE 25-131	3280	POUND	$2.50	$8,200.00
38	MULCH MATERIAL TYPE 3	16.4	TON	$300.00	$4,920.00
39	DISK ANCHORING	8.2	ACRE	$200.00	$1,640.00
40	EROSION CONTROL BLANKETS CATEGORY 3	11680	SQ YD	$2.00	$23,360.00
41	HYDRAULIC MATRIX TYPE MULCH	31980	POUND	$1.25	$39,975.00
42	4" SOLID LINE WHITE-PAINT	680	LIN FT	$0.30	$204.00
43	INSULATION (4' X 8' X 2" THICK)	50	SQ YD	$20.00	$1,000.00
44	8" PVC SEWER PIPE (SDR 26)	7175	LIN FT	$35.00	$251,125.00
45	8" DIRECTIONAL DRILL	1245	LIN FT	$55.00	$68,475.00
46	STEEL CASING PIPE (JACKED)	160	LIN FT	$300.00	$48,000.00
47	SANITARY SEWER MANHOLE, MnDOT DESIGN 4007C	32	EACH	$2,000.00	$64,000.00
48	SANITARY SEWER LI FT STATION	1	LUMP SUM	$120,000.00	$120,000.00
49	MANHOLE EXCESS DEPTH	171	LIN FT	$250.00	$42,750.00
50	OUTSIDE DROP CONNECTION	7.5	LIN FT	$500.00	$3,750.00
51	4" PVC SERVICE PIPE (SCH 40)	1855	LIN FT	$15.00	$27,825.00
52	6" PVC SERVICE PIPE (SCH 40)	280	LIN FT	$15.00	$4,200.00
53	8" X 4" PVC WYE	44	EACH	$450.00	$19,800.00
54	8" X 6" PVC WYE	12	EACH	$600.00	$7,200.00

CONSTRUCTION SUBTOTAL AMOUNT:	$1,510,777.75
CONSTRUCTION CONTINGENCY (20%):	$302,122.25
TOTAL CONSTRUCTION AMOUNT:	1,812,900.00
ENGINEERING, LEGAL, FINANCIAL, ADMINISTRATIVE (20%):	$362,600.00
PROJECT TOTAL:	**2,175,500.00**

ATTACHMENT "B"

Local Option Sales Tax Analysis for Crosslake, MN

ESTIMATED CONTRIBUTIONS OF RESIDENTS AND NON-RESIDENTS TO A LOCAL OPTION SALES TAX

Authored by Ryan Pesch

PROGRAM SPONSORS: CITY OF CROSSLAKE, MINNESOTA

Local Option Sales Tax Analysis for Crosslake

ESTIMATED CONTRIBUTIONS OF RESIDENTS AND NON-RESIDENTS TO A LOCAL OPTION SALES TAX

August 2019

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EXECUTIVE SUMMARY

University of Minnesota Extension recently conducted a study to estimate overall tax proceeds and the proportion of tax proceeds generated by Crosslake residents. Comparing these results to non-residents using the most recent sales and use tax data available from the Minnesota Department of Revenue (MN Revenue), Extension estimated that non-residents account for 80.7% of taxable sales subject to a local option sales tax (LOST).

Total taxable sales were $57.8 million in 2017, but MN Revenue analysts estimated that $48 million would be subject to a LOST. With 80.7% of sales derived from non-resident spending, Extension estimated that Crosslake residents spent $11.2 million of total taxable sales in 2017 and would have contributed $46,300 if the LOST were in place. That would have required each resident to contribute $20.58 on average in 2017.

The intent of this report was not to make recommendations to city officials about what actions to take, but rather determine the estimated sales tax proceeds from a local option tax program and what proportion of those dollars will likely be paid by year-round city residents versus non-residents.

Extension initially generated a trade area analysis comparing actual taxable sales, based on Minnesota Revenue sales tax data[1] with a calculated "potential sales" amount. This amount was determined by multiplying the Crosslake population by the Minnesota average per capita sales and then adjusting for the city's income factor. Doing so provided an estimate of retail and service purchases made by year-round Crosslake residents. For each merchandise group, the estimates for two types of purchasers—city residents and others—were considered and adjusted considering the area economy. These adjustments involved informed estimates and were aimed, in part, at reducing what otherwise might have been overestimates of the sales tax share falling to non-residents. Assumptions and calculations are shown for major retail and service categories so decision makers can adjust totals to accommodate local considerations.

Several key factors and features in the Crosslake economy helped frame our analysis of the different merchandise categories:

- Crosslake's store mix attracts a significant number of tourists who are visiting the area.
- Second homeowners were not considered Crosslake residents for this analysis and their spending is a significant contribution to local businesses. Over a third of housing units in Crow Wing County are seasonal according to the US Census Bureau.
- We assumed that Crosslake residents are frequently pulled to the nearby regional shopping center in Brainerd/Baxter to shop. This is in part due to the number of residents that work outside of the community (over 600 according to Census figures) and the close proximity of competing shopping areas (Figure 1).

1. *MN City Sales Tax Statistics.* (2016). Minnesota Department of Revenue. Retrieved from http://www.revenue.state.mn.us/research_stats/Pages/Sales-and-Use-Tax-Statistics-and-Annual-Reports.aspx

Figure 1: Crosslake worker in-flow and out-flow (Source: 2015 U.S. Census Bureau OnTheMap application, Longitudinal-Employer Household Dynamics Program, http://onthemap.ces.census.gov/)

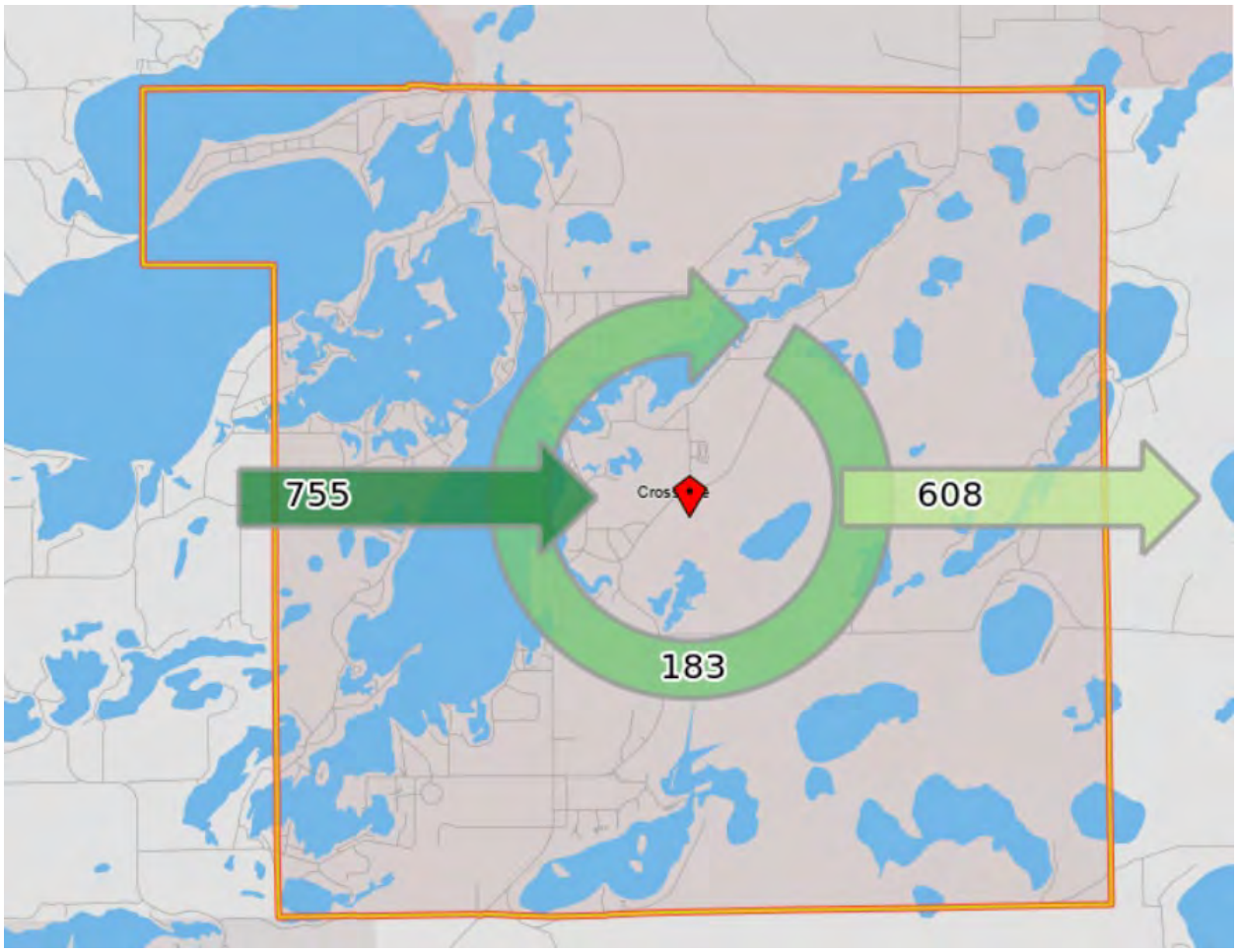


Figure 2 below shows the estimated percentage breakout—across all merchandise categories—for the *adjusted* analysis to more accurately reflect the city's economic and consumption circumstances. Based on these findings, we estimate 19.3 percent of all taxable retail and service sales would be made by permanent city residents, and the remaining 80.7 percent of taxable sales would be by non-residents.

Figure 2: Estimated taxable sales using an adjusted trade area analysis

	Taxable Sales Subject to LOST $millions	Percentage of Sales
Crosslake Residents	$9.3	19.3%
Non-residents	$38.7	80.7%
Totals	$48.0	100%

The Minnesota Department of Revenue research division estimated the dollars generated by a 0.50 percent local option sales tax and Extension estimated what residents would pay compared to non-residents (Figure 3). Based on correspondence with analysts at the Minnesota Department of Revenue who reviewed the Crosslake's 2013-17 sales tax statistics, **approximately $48,000,000 of the total $57,800,000 taxable sales are subject to a local option sales tax** and Extension based its estimates of projected tax proceeds on this figure.

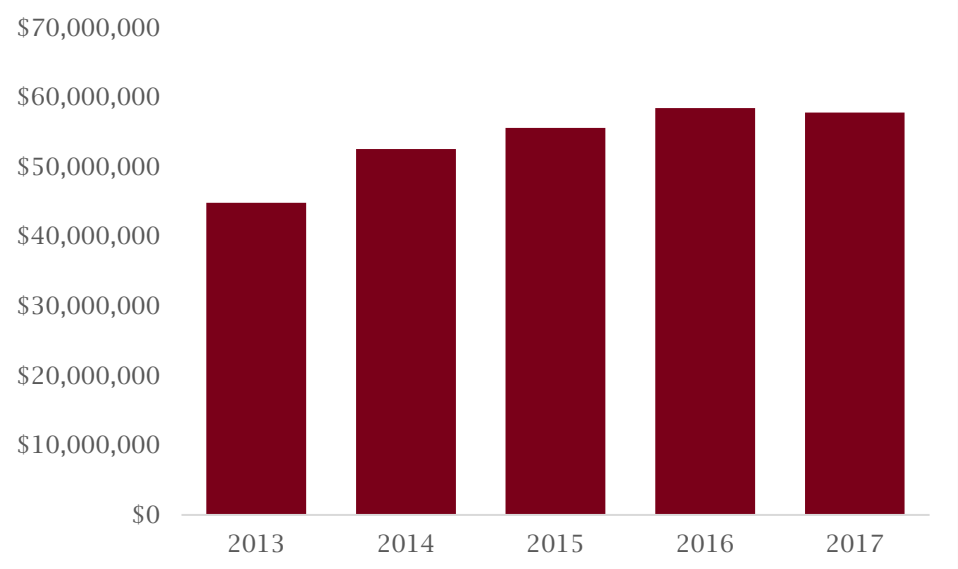
Crosslake could realize as much as $240,000 in tax proceeds if a half percent tax was enacted. If the city does realize $240,000, the portion of the tax total paid by non-residents is estimated to be $194 thousand, and the proportion paid by Crosslake residents is estimated to be $46 thousand.

Figure 3: Estimated tax proceeds and who pays in dollars

ESTIMATED TAX PROCEEEDS @ 1/2 of a Percent	Total Tax Proceeds	Dollars Paid By Crosslake Residents	Dollars Paid By Non-Residents
Total taxable sales subject to LOST: $48,000,000	$240,000	$46,294	$193,705

The total taxable sales in the city has increased 29 percent from 2013 to 2017 from $45 million to $58 million. Since tax proceeds are calculated as a percentage of total taxable sales subject to the sales tax, this increase during the past 5 years gives some sense of stability if a tax were enacted.

Figure 4: Total taxable sales in Crosslake from 2013 to 2017 (source: Minnesota Department of Revenue)



Proceeds from *use* taxes would also be added to the estimated tax proceeds from a local option sales tax. Use taxes derive from city businesses purchasing products from out-of-state sources and in other Minnesota locations, which are often less consistent and more difficult to accurately estimate than sales taxes. Based on 2016 figures, for each one-eighth of a percent enacted, city officials can expect an estimated additional $3,800 in use (not sales) tax proceeds.

Crosslake policymakers are understandably concerned that enacting a sales tax in their community will cause a loss of consumer purchases to other counties. However, at a half a percent, a local option sales tax would add 50 cents to a $100 purchase. Extension examined records of 11 cities that have enacted a local option sales tax since 1999 available on the Minnesota Department of

Revenue website. The records do not indicate a major purchasing change due to the additional sales tax, and most of the jurisdictions have shown continued sales growth (see Appendix A), although these communities may not be comparable to Crosslake. All communities in the analysis reside outside of the Twin Cities metro area and may retain shoppers better than in a competitive retail environment in the metro area where one could easily switch spending from one community to another.

BACKGROUND AND METHODOLOGY

Community economics educators at University of Minnesota Extension provide applied research and education to help community and business partners make better informed decisions. In recent years, Minnesota has adopted laws enabling local governments to enact a local option sales tax and Extension has assisted these administrations to estimate their potential tax proceeds and the portion of taxes paid by local residents.

This report estimates the proportion of tax proceeds generated by year-round Crosslake residents compared to non-residents. The most recently available state sales tax data (2017) from the Minnesota Department of Revenue (MN Revenue) is used.

Trade Area Analysis and Calculations

Extension conducted a trade area analysis of retail and service sales in select merchandise categories, estimating the amount of taxable sales subject to sales taxes that were made by local residents, as well as those made by non-residents. Use tax is insignificant compared to sales tax proceeds and is calculated differently.

Extension calculated potential sales for the city in each merchandise category and compared this calculation to actual taxable sales, as found in Minnesota Department of Revenue sales tax statistics for the same category. Actual sales greater than potential sales indicate the city attracts sales from outside the city or has sales greater than one would expect from only its residents. Extension used the difference between potential and actual sales to set reasonable estimates of spending by residents and non-residents across all categories. These estimates also helped inform adjustments for each category.

Potential sales calculations are based on average statewide spending by merchandise category and the population of the city, then adjusted by the level of income in Crow Wing County. Specifically, potential sales result from city population, state per capita taxable sales, and the index of income (see sidebar and Appendix B).

The section that follows, “Trade Area Analysis by Merchandise Category,” details the initial and adjusted trade area calculations for all merchandise categories. The sections labeled “Analysis with Adjustments” lists the final estimate of sales generated by non-residents. A rationale for adjustments and conclusions is also included.

Potential Sales estimate the dollar amounts for purchases made by local residents *if* local residents spend as much as the average Minnesota resident.

Potential sales are calculated by the following formula:
(T ÷ PMn) x PB x (YHC ÷YMn) = Potential Sales

T = Total Minnesota taxable sales for a merchandise category

PMn = 2017 Population of Minnesota (5,577,487)

PB = 2017 Population of Crosslake (2,250)

YHC = Per capita income of Crow Wing County resident ($42,708)

YMn = Per capita income of Minnesota resident ($54,351)

TRADE AREA ANALYSIS BY MERCHANDISE CATEGORY

Retail

65.4 percent of total taxable sales

The **38 businesses** in this category include all businesses engaged in retailing merchandise and rendering services incidental to the sale of merchandise.

	($Millions)
Actual taxable sales	$37.83
-Potential sales	$8.95
= $ variance	$28.88
= as % of potential	322.6%

Unadjusted Trade Area Analysis

Potential taxable sales to residents	$8.95
Surplus	$28.88
Total(local preference and non-residents)	$37.83
Surplus percentage	76.3%

Analysis with Adjustments

Capture rate of resident spending	63%
Residents' $ share	$5.67
Non-Residents' $ share	$32.15
Total	$37.83
Non-resident share per group	85.0%

Analysis for retail

The trade area analysis estimates that the city brings in approximately 322 percent more taxable sales than expected. This means that there's a $29 million surplus in taxable sales. If residents kept 100% of their spending in this category in Crosslake, 76% of the total spending would come from non-residents. The city retaining 100% of resident spending is highly unlikely with a nearby regional center in Brainerd/Baxter. In this context, Extension increased the non-resident share to 85%, which estimates that Crosslake residents spend 63% of their retail spending in the community.

Accommodations and Food Service

21.7 percent of taxable sales

These **27 operations** provide lodging and food services and include hotels, restaurants, and bars.

	($Millions)
Actual taxable sales	$12.55
Potential sales	$3.67
= $ variance	$8.88
= as % of potential	241.5%

Unadjusted Trade Area Analysis

Potential sales to residents	$3.67
Surplus (local preference and non-residents)	$8.88
Total	$12.55
Non-resident share per group	70.7%

Analysis with Adjustments

Capture rate of resident spending	58%
Residents' $ share	$2.13
Non-Residents' $ share	$10.42
Total	$12.55
Non-resident share per group	83.0%

Analysis for accommodations and food service

According to the potential sales estimates, Crosslake pulls in 71 percent more taxable sales into the city than expected. However, since MN Department of Revenue did not split these taxable sales between accommodations and food service to respect the privacy of businesses reporting, it is difficult to accurately estimate total non-resident spending. Accommodations obviously cater to non-residents, whereas food service businesses serve both locals and non-locals alike. Regardless of the split between these business categories, Crosslake is certainly attracting non-resident spending with at least 70% coming from non-residents. Setting the local capture rate below retail is a safe assumption since these figures include lodging. Extension conservatively set the non-resident share at 83% of taxable sales, which estimates that Crosslake businesses capture 58% of resident spending in food service and accommodations.

Real estate and rental

2.1 percent of total taxable retail and service sales

These **13 establishments** primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services. Types of businesses include equipment rental operations, real estate offices, and those who rent out properties

	($Millions)
Actual taxable sales	$1.23
-Potential sales	$0.36
= $ variance	$0.87
= as % of potential	243.1%

Unadjusted Trade Area Analysis

Potential sales to residents	$0.36
Surplus (local preference and non-residents)	$0.87
Total	$1.23
Non-resident share per group	70.9%

Analysis with Adjustments

Capture rate of resident spending	69%
Residents' $ share	$0.25
Non-residents' $ share	$0.98
Total	$1.23
Non-resident share per group	80.0%

Analysis for real estate and rental

Crosslake businesses are clearly bringing in non-resident sales, although this remains a relatively small source of taxable sales. Based solely on the trade area analysis, Crosslake is bringing in 71% more in taxable sales than one would expect. Considering that demand for real estate and equipment would overwhelmingly come from non-residents, Extension increased the share of non-resident spending to 80%.

Administrative and Support and Waste Management Services

1.8 percent of total taxable sales

These **12 establishments** performing routine support activities for the day-to-day operations of other organizations. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services. Types of business include travel agencies, landscaping services, and carpet cleaning services

	($Millions)
Actual taxable sales	$1.04
Potential sales	$0.38
= $ variance	$0.66
= as % of potential	175.0%

Unadjusted Trade Area Analysis

Potential sales to residents	$0.38
Surplus (local preference and non-residents)	$0.66
Total	$1.04
Non-resident share per group	63.6%

Analysis with Adjustments

Capture rate of resident spending	96%
Residents' $ share	$0.37
Non-residents' $ share	$0.68
Total	$1.04
Non-resident share per group	65.0%

Analysis for administrative and support services

Not unlike other business categories, there is strong evidence that Crosslake businesses are bringing in taxable sales over and above the expected sales of residents. Unlike retail and food service, however, there is less of rationale to greatly increase the non-resident share over the trade area analysis. Most of these firms would serve a local customer base and existing local businesses who would be their customer. Extension conservatively set the non-resident share at 65% of taxable sales.

Repair and personal services

1.7 percent of total taxable sales

The **16 businesses** in this category provide service in auto and equipment repair, personal services such as laundry, nail, hair, funeral, and pet care services.

	($Millions)
Actual taxable sales	$1.01
- Potential sales	$0.79
= $ variance	$0.22
= as % of potential	27.4%

Unadjusted Trade Area Analysis

Potential sales to residents	$0.79
Surplus (local preference and non-residents)	$0.22
Total	$1.01
Non-resident share per group	21.5%

Analysis with Adjustments

Capture rate of resident spending	83%
Residents' $ share	$0.65
Non-residents' $ share	$0.35
Total	$1.01
Non-resident share per group	35.0%

Analysis and Recommendations for Food and Groceries

The trade area analysis estimates a surplus of $220,000 more than expected in this mix of repair and personal categories. There is evidence of non-resident spending, although not at as great a proportion as other categories in this analysis. This is in large part due to the local nature of these services where customers generally remain loyal to their trusted service provider, whether a mechanic or a hair stylist. Assuming that local residents will purchase some of these services in other communities, Extension raised the non-resident share to 35% of taxable sales.

Construction

0.04 percent of total taxable sales

The **12 businesses** are engaged in the construction trades.

	($Millions)
Actual taxable sales	$0.03
Potential sales	NA
= $ variance	NA
= as % of potential	NA

Analysis with Adjustments

Residents' $ share	$0.01
Non-residents' $ share	$0.02
Total	$0.03
Non-resident share per group	60.0%

Analysis and Recommendations for Personal Services/Laundry

Construction service business in Crosslake contribute few taxable sales, although 12 firms operated in the community in 2017. Considering the prevalence of second homes in the region and related demand for construction, Extension set the non-resident share of taxable sales at 60%.

Miscellaneous

The department of revenue reported all other sales as miscellaneous in order to maintain the confidentiality of businesses. This mix of businesses would include all who do not fit within any of the above categories and would include manufacturing, transportation, wholesale, and technical services among other.

The 37 businesses in this miscellaneous category generated $4.14 million in taxable sales in 2017 or 7.2% of taxable sales reported for the community. Considering the difficulty to estimates sales from such a diverse mix, Extension set the non-resident share of taxable sales at 50%. Any businesses like manufacturing are export-oriented whereas transportation services and technical service providers like accountants typically serve a local market.

APPENDIX A: RESEARCH ON THE EFFECTS OF LOCAL OPTION SALES TAX

City of Crosslake policymakers are understandably concerned that enacting a local sales tax will result in a loss of consumer purchases to neighboring communities that have not adopted the tax.

The Minnesota Department of Revenue records the tax collected from Minnesota jurisdictions that have enacted a local sales or use tax within the last 10 years. Most of these cities show continued sales growth. A comparison that includes eleven Minnesota cities that have adopted a 0.5 percent local option sales tax is offered below (see Figures 7, 8, 9, and 10). None of the example communities are in the Twin Cities metro, however, which limits the comparison.

Decision-makers should decide on the best allowable method to raise revenue. One option is raising property taxes, which is not directly related to a household's current income and raises the financial burden of low-income or retired homeowners. Sales taxes raise revenues based on household expenditures, which excludes the basic necessities of food and clothing. However, since a sales tax raises revenues from non-residents who shop in Crosslake, local contributions to tax revenues are significantly lower than a tax generated exclusively by local residents. Policymakers should carefully consider each of the above factors before making a decision about enacting a local sales tax.

Figure 5: Taxable retail and service sales by communities that began collecting a local option sales tax between 1999-2006

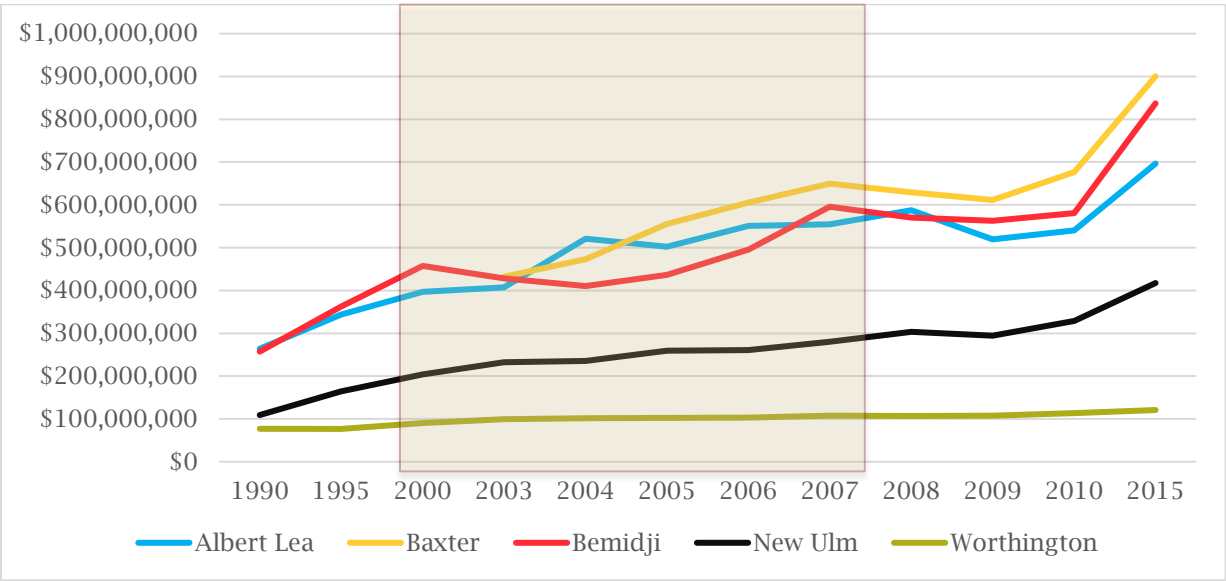


Figure 6: Data table for example communities, taxable retail and service sales (in millions)

Town Name	2015 Population	Year LOST	90	95	00	03	04	05	06	07	08	09	10	15
Albert Lea	18,356	2006	$264	$344	$397	$407	$521	$502	$551	$555	$588	$519	$541	$696
Baxter	8,065	2006				$432	$473	$556	$605	$650	$630	$612	$676	$900
Bemidji	11,917	2005	$257	$362	$457	$428	$410	$437	$495	$596	$570	$563	$581	$837
New Ulm	13,594	1999	$109	$165	$204	$233	$236	$259	$261	$280	$303	$295	$329	$417
Worthington	11,283	2005	$77	$77	$91	$99	$102	$103	$103	$108	$107	$108	$114	$121

Figure 7: Taxable retail and service sales by communities that began collecting a local option sales tax between 2011- 2012

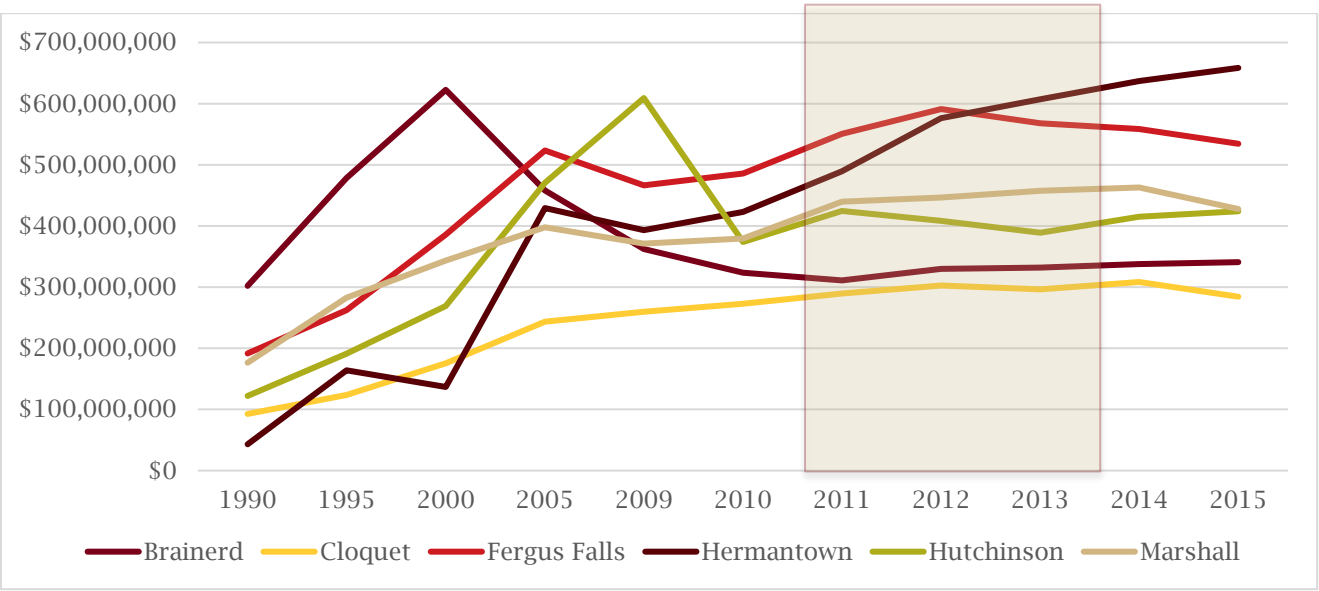


Figure 8: Data table for example communities, taxable retail and service sales (in millions)

Town Name	2015 Pop	Year LOST	90	95	00	05	09	10	11	12	13	14	15
Brainerd	13,178	2011	$302	$479	$623	$458	$362	$324	$311	$330	$332	$338	$341
Cloquet	11,201	2011	$93	$124	$175	$244	$260	$273	$290	$303	$296	$308	$284
Fergus Falls	13,471	2011	$192	$263	$386	$523	$467	$486	$551	$591	$568	$558	$534
Hermantown	7,448	1996 - increase 2012	$43	$164	$137	$430	$393	$423	$489	$576	$607	$637	$659
Hutchinson	13,080	2011	$122	$191	$269	$471	$609	$374	$425	$409	$389	$415	$424
Marshall	12,735	2011	$176	$283	$343	$398	$371	$380	$440	$447	$457	$463	$428

APPENDIX B: DEFINITIONS OF TERMS

Gross Sales
Gross sales include taxable sales and exempt businesses with sales and use tax permits. This is the most inclusive indicator of business activity for the reporting jurisdictions, but it can be misleading when used in comparisons. At times, non-taxable commodity items (e.g., gasoline) can have large price variations, creating huge swings in gross sales.

Taxable Sales
Taxable sales are those sales subject to sales tax. Taxable sales exclude exempt items, items sold for resale, items sold for exempt purposes, and items sold to exempt organizations. For the purpose of this study, taxable sales were the focus of the analysis. For more information on what is taxed in Minnesota, see the "Minnesota Sales and Use Tax Instruction Booklet" available at http://www.revenue.state.mn.us/Forms_and_Instructions/sales_tax_booklet.pdf

Taxable Retail and Service Sales
In this study and other retail trade analyses conducted by University of Minnesota Extension, the term “taxable retail and service sales” refers to the North American Industry Classification System (NAICS) numbers of 441 to 454 (retail) and 511 to 812 (most service industries) released by the Minnesota Department of Revenue for a geographic area.

Current and Constant Dollar Sales
Current dollar (or “nominal dollar”) sales are those reported by the state. No adjustment has been made for price inflation. In general, this measure of sales is not satisfactory for comparisons over long periods of time since it does not account for changes in population, inflation, or the state's economy. Constant dollar (or “real dollar”) sales reflect changes in price inflation by adjusting current dollar sales according to the Consumer Price Index (CPI). Constant dollar sales indicate the real sales level with respect to a base year. This is a more realistic method of evaluating sales over time than current dollar comparisons, but it still does not take into consideration changes in population or the state’s economy.

Number of Businesses
The number of sales and use tax permit holders who filed one or more tax returns for the year.

Index of Income
This index provides a relative measure of income, calculated by dividing local per capita income by state per capita income. The base is 1.00. For example, a 1.20 index of income indicates that per capita income in the area is 20 percent above the state average.

Potential Sales
Potential sales are an estimate of the amount of money spent on retail goods and services by residents of a county. It is the product of county population, state per capita sales, and the index of income. Potential sales for counties is similar to expected sales for cities. Potential sales, however, do not utilize a measure of average pulling power (like the typical pull factor used in the expected sales equation). Since a county is a relatively large region where retail business takes place, counties are compared without adjustments for trade area size.

Actual Sales
For this study, the Minnesota Department of Revenue’s 2016 sales data for City of Crosslake provides the actual sales numbers used.

Variance between Actual and Potential Sales

The variance between actual and expected sales is the difference in sales from the "norm" (i.e., the amount above or below the standard established by the expected sales formula). When actual sales exceed expected sales, the county has a "surplus" of retail sales. When actual sales fall short of expected sales, the county has a retail sales "leakage." Discrepancies between expected and actual sales occur for a variety of reasons. For this study, we use potential sales per merchandise group to create a first-cut estimate of residents' purchase activities.

Cautions

Gross Sales

Gross sales are a comprehensive measure of business activity, but it should be noted the numbers in this report are self-reported. Furthermore, gross sales are not audited by the State of Minnesota. It is believed gross sales figures are generally reliable, but there is the possibility of distortions, especially in smaller cities where misreporting may have occurred.

Misclassification

Holders of sales and use tax permits select the North American Industry Classification System (NAICS) category that best fits their business. Regardless of who makes this classification, errors are occasionally made. Also, sometimes a business will start out as one type but evolve over time to a considerably different type. Misclassifications can distort sales among business categories, especially in smaller cities. For example, a furniture store that is classified as a general merchandise store will under-report sales in the furniture store category and over-report sales in the general merchandise category.

Suppressed Data

The sales data for merchandise categories that have less than four reporting firms are not reported. This is a measure taken by most states to protect the confidentiality of sales tax permit holders. Sales for suppressed retail categories are placed into the miscellaneous retail category (NAICS 999) and included in total sales but not total sales of a typical retail trade analysis. For this report, however, all taxable sales—including NAICS 999—are part of calculating the amount of special taxes collected.

Consolidated Reporting

Vendors with more than one location in Minnesota have the option of filing a separate return for each location or filing one consolidated return for all locations. The consolidated return shows sales made, tax due, and location by city and county for each business. Data for consolidated filers are combined with data for single-location filers to produce the figures in this report. Occasionally, consolidated reports may not be properly deconstructed, and all sales for a company may be reported for one town or city. Whenever misreporting is discovered, the Minnesota Department of Revenue is contacted to clarify the situation.

ATTACHMENT "C"

ATTACHMENT "C" - Proposed Funding Details
City of Crosslake
Sales Tax Project Funding and Sales Tax Collection Estimates

Estimated Annual Sales Tax Receipts at 1/2 Percent	$ 240,000
Date of First Sales Tax Receipt - 2nd half of 2021	$ 135,000
Assumed Annual increase in amount received each year	4.5%

Project funding assumes G.O. Bonds would be issued to finance each project. Estimated sales tax collections along with special assessment and sewer availability charges would be used to pay for each project per the proposed schedule.

		Estimated Sales/Use Tax		Moonlite Service Area				Bio Solids - No Assessments				Daggett Bay Road						Totals	
				Bond Payment		Assessments @ 30%		Bond Payment		SAC Fees Used From Moonlite		Bond Payment		Assessments @ 30%		SAC Fees Used From Daggett Bay			
Year		Annual	Cumulative	P & I	Cumulative	Assmts P % I	Cumulative	P & I	Cumulative	P & I	Cumulative	P & I	Cumulative	Assmts P % I	Cumulative	P & I	Cumulative	Annual	Cumulative
1	2022	135,000	135,000	(129,226)	(129,226)	47,820	47,820	-	-	-	-	-	-	-	-	-	-	53,594	53,594
2	2023	250,800	385,800	(129,226)	(258,453)	47,820	95,641	-	-	-	-	-	-	-	-	-	-	169,394	222,988
3	2024	262,086	647,886	(129,226)	(387,679)	47,820	143,461	(234,461)	(234,461)	47,500	47,500	-	-	-	-	-	-	(6,281)	216,707
4	2025	273,880	921,766	(129,226)	(516,905)	47,820	191,281	(234,461)	(468,922)	47,500	95,000	-	-	-	-	-	-	5,513	222,220
5	2026	286,204	1,207,970	(129,226)	(646,132)	47,820	239,101	(234,461)	(703,383)	47,500	142,500	-	-	-	-	-	-	17,837	240,057
6	2027	299,084	1,507,054	(129,226)	(775,358)	47,820	286,922	(234,461)	(937,844)	47,500	190,000	(281,353)	(281,353)	95,521	95,521	22,400	22,400	(132,716)	107,341
7	2028	312,542	1,819,596	(129,226)	(904,584)	47,820	334,742	(234,461)	(1,172,305)	47,500	237,500	(281,353)	(562,706)	95,521	191,042	22,400	44,800	(119,257)	(11,916)
8	2029	326,607	2,146,203	(129,226)	(1,033,811)	47,820	382,562	(234,461)	(1,406,766)	47,500	285,000	(281,353)	(844,060)	95,521	286,562	22,400	67,200	(105,193)	(117,108)
9	2030	341,304	2,487,507	(129,226)	(1,163,037)	47,820	430,383	(234,461)	(1,641,227)	47,500	332,500	(281,353)	(1,125,413)	95,521	382,083	22,400	89,600	(90,495)	(207,604)
10	2031	356,663	2,844,170	(129,226)	(1,292,263)	47,820	478,203	(234,461)	(1,875,688)	47,500	380,000	(281,353)	(1,406,766)	95,521	477,604	22,400	112,000	(75,137)	(282,740)
11	2032	372,713	3,216,883	(129,226)	(1,421,490)	47,820	526,023	(234,461)	(2,110,149)	47,500	427,500	(281,353)	(1,688,119)	95,521	573,125	22,400	134,400	(59,087)	(341,827)
12	2033	389,485	3,606,368	(129,226)	(1,550,716)	47,820	573,843	(227,632)	(2,337,781)	47,500	475,000	(281,353)	(1,969,473)	95,521	668,646	22,400	156,800	(35,486)	(377,313)
13	2034	407,012	4,013,379	(129,226)	(1,679,942)	47,820	621,664	-	(2,337,781)	-	475,000	(281,353)	(2,250,826)	95,521	764,166	22,400	179,200	162,173	(215,140)
14	2035	425,327	4,438,706	(129,226)	(1,809,169)	47,820	669,484	-	(2,337,781)	-	475,000	(281,353)	(2,532,179)	95,521	859,687	22,400	201,600	180,489	(34,651)
15	2036	361,294	4,800,000	(126,074)	(1,935,243)	45,327	714,811	-	(2,337,781)	-	475,000	(273,158)	(2,805,337)	90,541	950,228	22,400	224,000	120,329	**85,678**
Total			4,800,000	(1,935,243)		714,811		(2,337,781)		475,000		(2,805,337)		950,228		224,000			**85,678**
Reduced year 15 to limit cumulative amount to			4,800,000					**Assumed SAC Fees Generated from Moonlite Service Area Project would be used to cover project costs.**				**Assumes SAC Fees Generated from Daggett Bay Project would used to offset costs.**						**Projection shows there may be a surplus - depends on SAC Fees Used.**	
				Any deficit at year end would need to be funded with cash.															

Attachment "C"

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